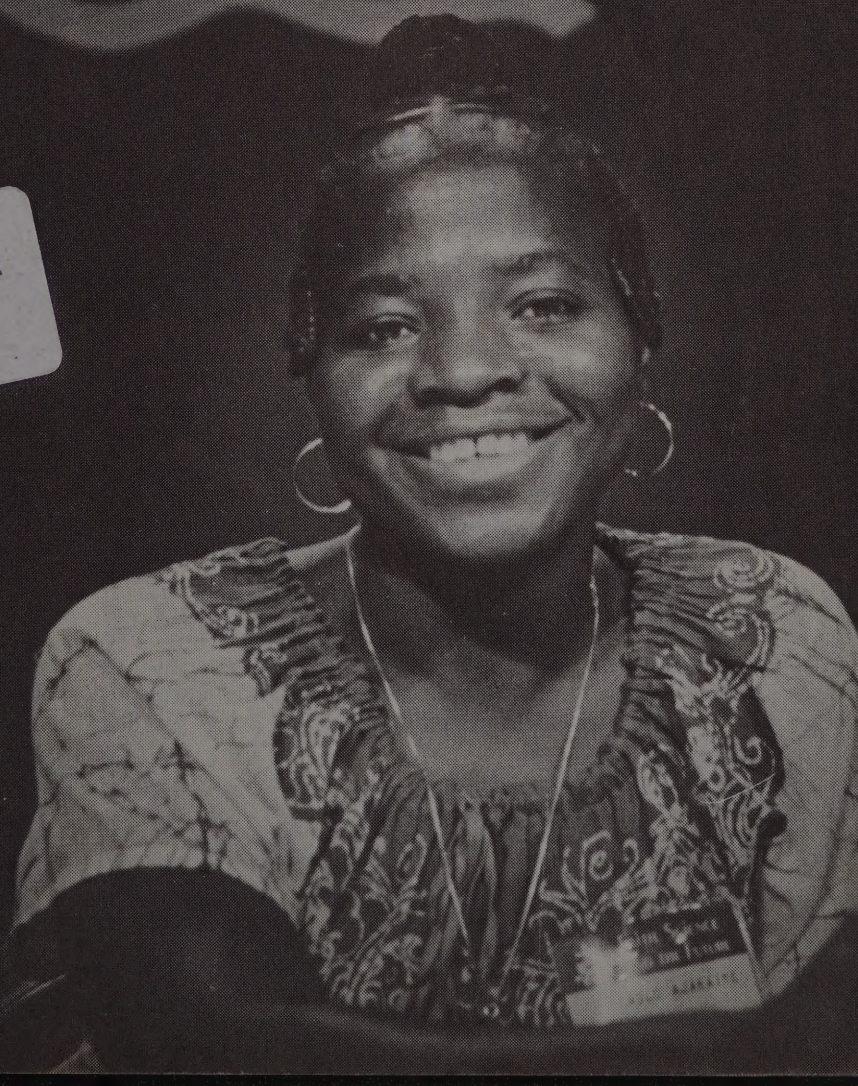
WCC REFERENCE ROOM
Vancouver Assembly
No. 12

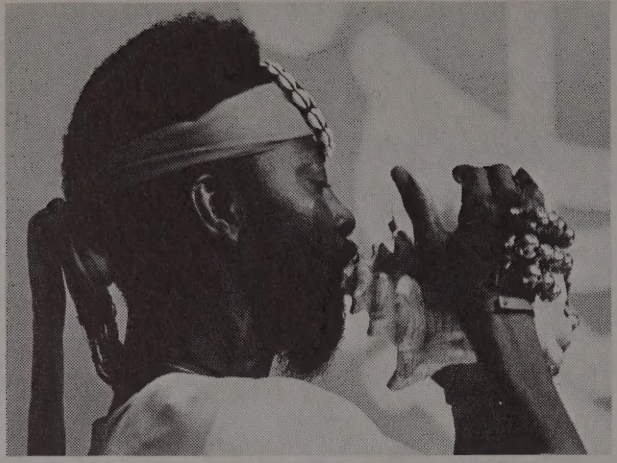
action

No 27

MAY 1980

BIBLIOTHEQUE
INSTITUT OECUMENIQUE
Château de BOSSEY
CH-1299 CELIGNY (Suisse)





1.

2.

anticipation

N° 27 **may 1980**

Design: John Taylor

CHURCH AND SOCIETY WORLD COUNCIL OF CHURCHES
150 Route de Ferney - 1211 Geneva 20

TABLE OF CONTENTS page

I. Editorial – Contents of this Issue 3

II. Reports by Participants on the Conference at MIT 6
Rubem Alves (Brazil), C.T. Kurien (India), Gustavus Warfield (USA), Smith Ngulh Za Thawng (Burma), Ragui Assaad (Egypt), Tracy Gross and Harold Clark (USA), David Gosling (UK), Günter Altner (FRG), Arthur Peacocke (UK), Pietro Comba (Italy).

III. Sound and Image - Films and Other Arts at MIT, *John Taylor* 23

IV. Communicating Science in a Participatory Society, *Eileen Francis* 31

V. The WCC Programme on Energy For My Neighbour - The Search for a New Look, *Janos Pasztor* 34

VI. The Accredited Visitors' Programme at the MIT Conference, *Robert W. Thornburg* 36

VII. Science and Technology for a New International Economic Order - Report on the U.N. Conference at Vienna, August, 1979 39

VIII. Church and Science - Excerpts from a Statement by Pope Jean Paul II 44

IX. MIT Scrapbook 46

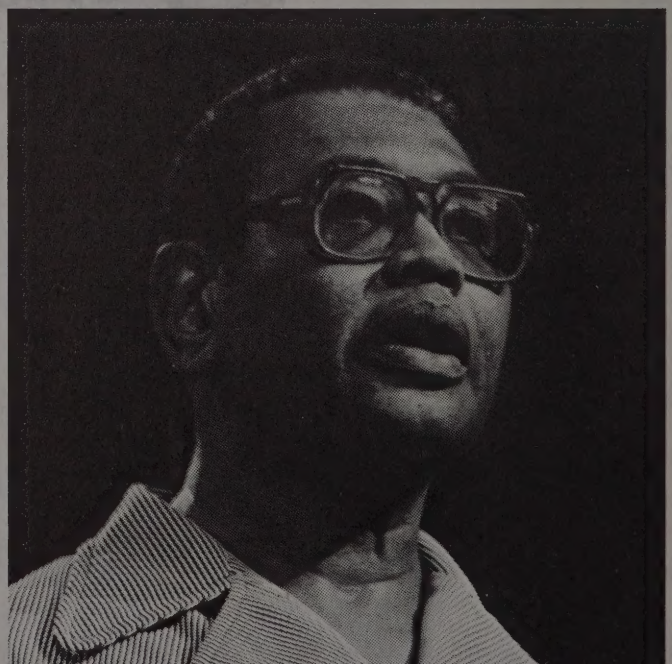
X. Church and Society Replies to its Critics, *Paul Abrecht* 49

participa

What I am trying to hint at is that a just and sustainable society is impossible without a society which is participatory. In the present situation of science and technology, they are not really participatory, or rather they are forced to be biassed on the side of those who wield economic and political power. There is little sign that they are on the side of the oppressed, the deprived and the marginalised, or simply the people. Science and technology might claim to be objective and universal, but this claim is not borne out in reality. The whole drift of ecumenical social thought, especially in recent years, is that participation in decision-making is an essential dimension in the cause of justice for all and for fullness of life for all.

From The Opening address of Philip Potter, WCC General Secretary.

3.

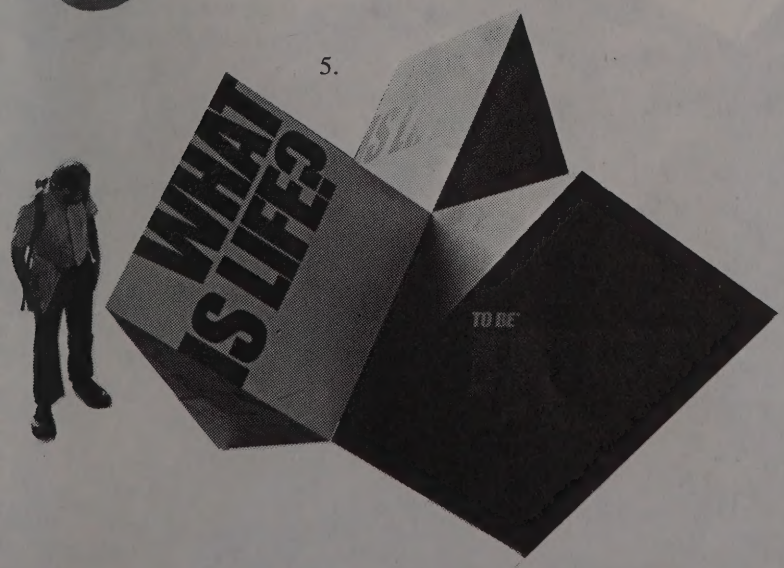


Photos: 1. African musician opens MIT Conference, 2. A steward meets a Bishop of the Coptic Church, 3. The General Secretary is the first speaker, 4. MIT Students dramatise their concerns, 5. One of the many Conference exhibits, 6. Boston Cathedral choir at the opening worship.

4.

pation

5.



6.

Response to the Conference on Faith, Science and the Future

Immediately after the Conference at MIT the discussion started on what had been achieved, how to interpret the results, and where it should lead the WCC and its member churches. There has also been an interest in comparing it with the UN Conference on Science and Technology for Development, held in Vienna in August, 1979, and among old ecumenical hands, with the 1966 Conference on Church and Society.

The Official Report of the WCC Conference at MIT will be published in March 1980 in two volumes: *Faith and Science in an Unjust World: Volume I* containing the plenary addresses is edited by Roger Shinn who has also provided an introductory chapter on the dynamics of the Conference; *Volume II* includes the findings and recommendations.

In this issue of *Anticipation* we present a survey of reactions and responses to the Conference.

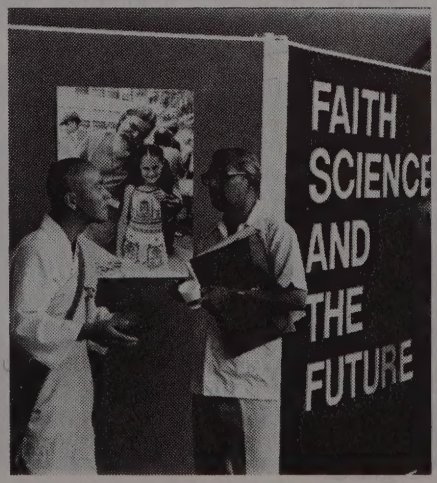
ACHIEVEMENTS AND UNRESOLVED ISSUES

One of the problems of the ecumenical movement is that there are so many different expectations and criteria which people bring to such a conference and by which they judge its results. Clearly it will take some time before these different evaluations can themselves be evaluated. However judging by the reports and interpretations already received there is some consensus about the Conference achievements:

1. It provided a vigourous encounter between many different groups within the churches concerned about the role of science and technology in the modern world, including

- science students eager to challenge their own educational establishments;
- western scientists being challenged by persons from the Third World on scientific and moral grounds;
- theologians endeavouring to come to grips with the social and spiritual assumptions of modern science; and scientists asking for more light from theology on the relevance of faith for their dilemmas;
- scientists of different disciplines engaging in interdisciplinary discussions in a wider context than was normally possible for them.

All these encounters and conversations remain open-ended; the issues raised were too numerous and too complex to be resolved during the meeting.



2. The Conference showed the importance of looking at the social-ethical responsibility of science in a world context. Most discussions of the ethics of science have taken place in a predominantly western context. The Conference at MIT was therefore a new experience for many western scientists who were unaccustomed to view their work against the human and material needs of the larger global community. It showed how much rethinking of the goals of science and technology will be necessary to meet the demands of this wider social-ethical perspective.

3. The Conference did not resolve the theological-philosophical issues underlying the debate about faith, science and society; but it revealed a new awareness of their importance as well as the need to make a breakthrough, one applicable in a world context. It was agreed that modern science and technology rest upon certain assumptions about human nature, about creation, about the future, etc. which are understood and interpreted very differently in different political, ideological and spiritual contexts. Much of the frustration arose from the fact that these conceptual differences cannot and will not be resolved readily, and yet, decisive issues of policy rest upon finding a new common understanding.

4. The Conference did achieve some measure of agreement on one critical issue: our Christian understanding of creation. But the implications of this have still to be developed within the Christian community and between it and other

religious traditions and ideologies. The Conference offers helpful lines for pursuing this debate in the future.

5. Not surprisingly, in view of many conceptual differences, the Conference made little progress in defining more precisely the nature of "appropriate" technology. It could not resolve the conflict between the cultural and spiritual criteria for judging science and technology and the political, economic and military requirements of the nations, which demand the power that the most advanced and sophisticated technology gives. Thus in relation to science and technology for peace the Conference could both pass a strong resolution asking church people, scientists and governments "never again to allow science and technology to threaten the destruction of human life" and at the same time recognize that if justice is to be achieved in a world presently dominated by super-powers and transnational corporations the developing countries will need "equal countervailing powers" based on a rapid advance in their own technological capacity. There seems thus to be no resolution of the tension between the need of power for justice and the spiritual and moral ideals which all humanity would like to uphold.

6. In its own style of work and composition the Conference tried to follow a participatory approach to issues of science policy, giving voice to the interests of all concerned people as well as to the particular knowledge and insight of the scientist and technical expert. The Conference also offered suggestions to scientists about how to share responsibility with the wider community. However the problem of relating a participatory style to the issues of moral responsibility posed by the Christian faith were only tentatively explored.

7. The Conference generally supported the emerging ecumenical view that, as a matter of principle, Christian social thought and action must hold together the concerns for economic and political justice, ecological and technological sustainability, and community participation in decision-making. However, when the Conference sought to be more precise in expressing this, substantial differences arose. This was particularly the case in relation to the Conference debate about the economics of the just, participatory and sustainable society, where great differences of opinion arose especially between economists from the rich and poor countries.

CONTENTS OF THIS ISSUE

In this issue we offer a small selection of the many interesting interpretations and evaluations written by Conference participants for a great variety of audience

- Rubem Alves, a theologian-philosopher participant from Brazil describes the Conference for the *Folha de Sâo Paulo,* a daily newspaper in Sao Paulo, Brazil.
- C.T. Kurien, the Indian economist, reports to his home church, in the Magazine of St. Andrew's Church, Madras.
- Gustavus Warfield, one of the accredited visitors and a Presbyterian pastor from New Jersey, USA, prepared his account of the Conference for the Presbytery of Newark.
- Pietro Comba, a science student participant from Italy and a member of the Waldensian Church, interprets the Conference for *Unità,* daily newspaper of the Communist Party of Italy. (He says it was the only paper of the five to which he sent it that printed it.)
- Other science students have written reports and the World Student Christian Federation has recently presented a number of these in the *WSCF Journal* (no. 3, 1979). We are pleased to reprint three by Smith Ngulh Za Thawng, of Burma; Ragui Assaad from Egypt; and Tracy Gross and Harold Clark from the USA. We thank the editor of the *WSCF Journal* for their permission to reproduce these papers.
- David Gosling, a physicist and a theologian, who served as coopted staff, interprets the Conference discussions and recommendations on energy for the *Crucible,* the quarterly bulletin of the Board of Social Responsibility of the Church of England.

● Günter Altner, a biologist and a theologian and a participant from the Federal Republic of Germany, writes for the November 1979 issue of *Der Überblick,* the quarterly journal of the Arbeitsgemeinschaft Kirchlicher Entwicklungsdienst, of the Evangelical Church in Germany, which devoted its entire September quarterly to the Conference themes.

● L.W. Lang, a Roman Catholic scientist participant from Austria, gives his impressions in *Una Sancta,* the West German Roman Catholic journal which specializes in ecumenical matters and which devoted a large part of its third guarter issue to the Conference at MIT.

● Arthur Peacocke, a scientist theologian from Cambridge University, England, describes the Conference for *Nature* Magazine.

● In some articles, especially those written for *The Ecumenical Review,* no. 3, October 1979, several participants have been critical of the heavy concentration of plenary presentations and the lack of opportunity for more communication between Conference participants. Eileen Francis, a coopted staff participant, sent us a paper about "communiation" at MIT and offers suggestions for future meetings. We are pleased to publish it here. Mrs Francis is Lecturer in the Speech Unit, Moray House College of Education, Edinburgh, Scotland.

● Robert Thornburg's account of the programme for Accredited Visitors describes one of the dynamic sideshows of the Boston Conference. We are grateful to Dr Thornburg, the committee of American church leaders and Boston University and its School of Theology for their great help in preparing the Accredited Visitors' Programme.

● One of the most stimulating aspects of the Conference was the presence of films and other arts as integral parts of the encounter. A report on the Conference in the *New York Times* emphasised the contribution that films had brought to the Conference by posing the key questions in a very concentrated way. The meeting was closed with the showing of Homo Homini, the film by John Taylor that asks what science and technology can and cannot do. At the closing session, Moderator Paulos Gregorios gave a strong tribute to the team which had put together the film, arts and exhibitions programme. There has been an extraordinary demand for more information on the programme. We have asked Taylor to share information that can help others to stage their own exhibits.

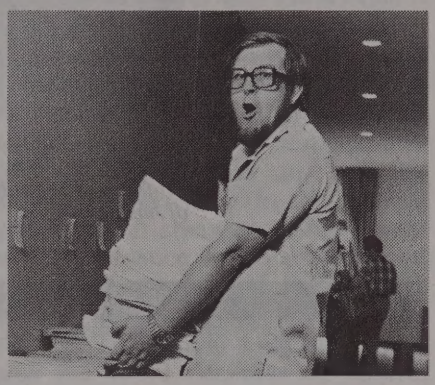
John Francis, nuclear scientist and civil servant from the U.K., offers the Conference a more precise wording for a moratorium on the construction of more nuclear power plants. (far left)

Over 150 journalists followed the Conference proceedings and a large volume of very positive reports were produced and are still being received from around the world. (left)

Trevor Davies, Head of WCC Personnel in Geneva, becomes head of paper processing for the Conference. Forty Conference presentations had to be duplicated and translated into four languages for the more than 900 persons who followed the Conference proceedings. (above)

Informal discussion group following a Conference session. (below)

● In this issue we introduce our new colleague, Janos Pasztor, a Hungarian scientist recently graduated from MIT. Janos joined the staff of Church and Society in December as consultant for the programme "Energy for my Neighbour". He served as staff for Section VI on Energy for the Future during the Conference at MIT, and is well informed on the recommendations of that Conference. We look forward to his contribution.



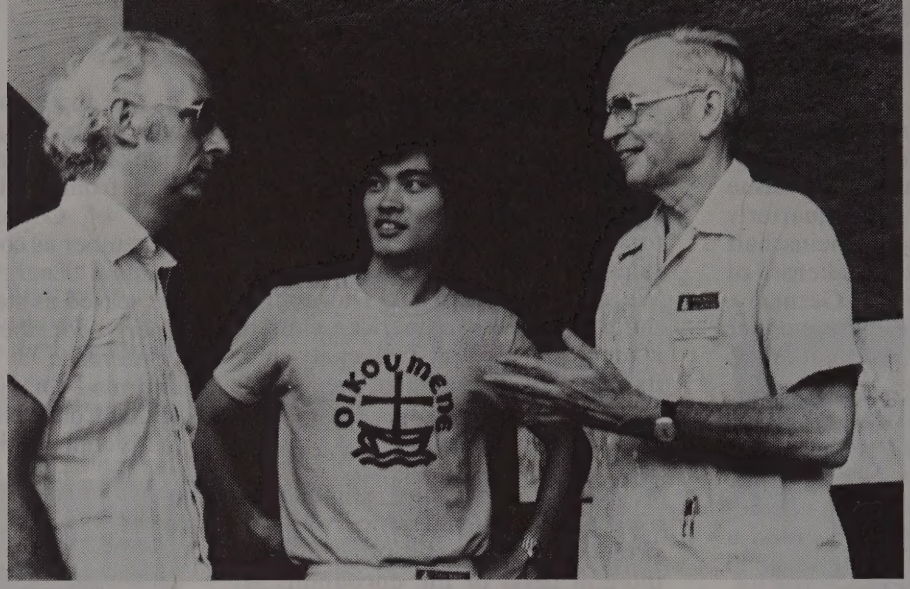
● What did the UN Conference on Science and Technology in Vienna achieve and how does it relate to the further WCC work on these topics? Metropolitan Gregorios offers his views on the results of that meeting. We include also excerpts from some of the actions of the UN Conference adopted in final exhausting night sessions that continued into the early morning hours. Also included is a report on the decisive actions of the UN General Assembly (Dec. 1979) to reshape and renvigorate the UN's work on Science and Technology for development.

● We also include excerpts from a recent statement of Pope John Paul II on Faith and Science to the annual meeting of the Pontifical Academy of Sciences celebrating the hundredth anniversary of Einstein.

There is much more to report on the MIT Conference especially on the follow-up being prepared in different countries. A report on this will be offered in the next issue of *Anticipation.*

Finally we publish a reply to some of our critics – not concerning the 1979 Conference at MIT – but the 1966 Conference on Church and Society! This comes in the context of new attacks on the social thought and action of the WCC. We are pleased to reply to these allegations and to provide information which could help some who might be misled by such false criticism. An abbreviated version of this reply was originally published in *The Christian Century* (February 27) in the USA.

Paul Abrecht



In the closing sessions the discussion on the Conference Reports was serious and strenuous. Here Prof. Rubem Alves, Philosopher and Scientist from Brazil, makes his point to Prof. Roger Shinn, Professor of Social Ethics, Union Theological Seminary, New York, and steward Chicharu Kikuchi of Japan, listens in.

SCIENCE AND RELIGION IN SEARCH OF A UTOPIA

A Participant Reports on the Conference for a News paper in Brazil — *Rubem Alves*

"Frequently utopia is nothing else than premature truth" (Lamartine). It is quite difficult to take such an assertion seriously nowadays. For a long time utopias have been relegated to museums of pre-scientific and pretechnological illusions. Denounced by Marxism as the naïve creations of well-intended but badly informed individuals, they were expelled from academic circles because of the engineering mentality of the technicians: they prefer to solve problems in isolation rather than to question the global political structures in which these problems occur. Hence we find ourselves in a painful situation: our enormous ability to criticize does not derive from some visions of an alternative future. Where, then, should we look for the plans for a new social order able to solve the problems that face us today? Orthodox Marxism pretended that such projects were useless since they already existed in the midst of historical reality. Capitalism declares that there is no need of such projects because nothing is wrong in the social order we live in. As K. Mannheim showed, pragmatic capitalism never questions itself about its own totality. "How can I solve this particular problem?" In all these questions we can sense an optimistic echo: no need of concerning myself with totality, the "whole" will take care of itself... As Norman O. Brown puts it, "Humanity today is still making history without any conscious idea of what it really desires nor of the conditions in which humanity would cease to be unhappy".

In spite of this almost a thousand scientists, engineers, technologists, theologians, science philosophers, educators, students and ecclesiastical bureaucrats met from July 12 to 24 for a "utopian thought" exercise, under the supervision of the World Council of Churches, and in the centre itself of technology's power and arrogance, the Massachusetts Institute of Technology, Cambridge, USA – 131 representatives of Eastern Europe, 158 of the rich Western countries, 254 observers (some of them from the Vatican), 145 journalists, 69 science students and 128 staff members of the WCC. Its programme was not modest – utopian thought should not be modest. Identifying the ways to build "a society which is just, able to support itself and based on participation" was the meeting's aim. A special emphasis was given to the role of technology and of religion in this process.

I do not recall such a meeting, of such an importance bringing together men of science and of the Church in order to discuss common problems. The secular and anti-clerical inspiration of science is much too obvious – and Galileo's trial can still be used as a paradigm of the relationship between these two institutions: Church and Science. Why should scientists waste their time with people concerned with a universe so far from research, from tests and from "an objective search for truth"? On the other hand, why should the churches risk an encounter with those who are responsible, to a great extent, for society's secularization, for the marginalization of religion and of "God's death"?

The meeting did not follow these common preconceptions but acted according to fact that both science and religion are passengers of the same fragile spaceship, with slim resources and weakened by internal conflicts. One can already notice dangerous fissures in its structure – and its orientation is more than problematic. We walk towards a future in which, perhaps, there will be neither place for religion nor for science, since humanity's future and even life's future have become uncertain. In situations of danger, facing a new enemy, even old enemies can make an alliance. Despite epistemological and incompatible philosophical opinions, religion and science rediscover a common engagement with life and society's well-being.

It is very strange indeed that such a meeting was held in the MIT. Many were those who vetoed the proposal: MIT is really something other than a school of technology like many others; it is a symbol. It is frequently described as "the biggest technical institution in world history". It was founded in 1861 by a group of progressive engineers and since then has been inspired by the idea of technological progress without restrictions or limits. But when technology is considered as an independent and self-sufficient entity, then it is obvious that those who invented it don't waste their time thinking about either its social and political consequences or about the interests which sustain technology's development. Hence MIT has had close relationship with many political and military plans of North America, and this fact is a clear explanation of its national importance. This engagement with technology, by technology, is symbolized in an enormous wall painting in one of its gigantic student dining rooms. In the upper part is the goddess of science's severe face. Immediately after her appears the High Priest with his ritual clothes – the scientist in his white smock. To the right an amphora surrounded by angels and by the goddess of Abundance. To the left in the shade, another amphora, with a wolf's head and a witch beside it. In the foreground the congregation of scientists and their motto: "...and you will be like God knowing good and evil...". Any institution that borrows the serpent's words as its own motto (especially in the USA, and not that far from Salem, Mass.) openly assumes an engagement with knowledge, independently from the consequences knowledge will bring.

However, the World Council of Churches has been committed to the struggle against European and American colonialism for many years now – and this fact has even stigmatized the WCC as a subversive entity. How can we explain that a religious organization, well aware of the role of science and technology in the extension of colonialism, agreed to hold this discussion in the most famous of science's temples? Was it ideological surrender?

This time at least there was no reason to fear: the consciousness of the crisis nowadays was stronger than any ideological influence of MIT. In spite of the important number of scientists who still believe in a romantic vision of science, as if it were a search for objective truth and totally disconnected from economic and political determinisms, the weight of facts did much more influence the results of the debate. The days when scientists proposed science as a perfect solution for all human problems are gone. The great problems of our time, those we have to solve, are the direct results or consequences of science and technology. The energy crisis, the ecological crisis, the expansion of militarism, the political reality of the international enterprises and investments (which render the concept of "nation" completely obsolete), the possibility of a nuclear war (not to be ignored in case of an oil crisis) – the new possibilities opened in the field of biology, the increasing "imbecilization" of people resulting from the creation of "knowledge élites" – all these problems derive from the present development of science. Solutions cannot be found by the mere quantitative expansion of scientific knowledge. We must not naïvely formulate our problem as an equation, as if it meant a mere lack of knowledge. Frequently enough the opposite is true. There are groups who know too much: and those who know too much invariably obtain too much power.

These enormous contradictions have been provoked by the present organization of power and knowledge – and consequently the WCC, perhaps inspired by evangelical wisdom (which says that "there is no need to sew material on an old cloth"), suggested what should be discussed: the means of achieving a *just society* which can sustain itself and which is based on *participation.* Mannheim remarked that utopias always appear at the "points of strangulation of the present". The three words express the crucial points of our crisis, according to the analysis made by the WCC. Justice is only a shorthand reference to the end of the present conditions of domination and exploitation that the rich and powerful exercise against the poor and weak. The idea of a society able to sustain itself concerns the rapid decrease of natural resources. The earth is a spaceship but it has limited resources. Limited in two senses: first, resources do come to an end. Secondly, our ecological system, the set of conditions which render life possible, cannot be altered forever. Nevertheless, the present system of capitalist production, always requiring a permanent growth, is rapidly leading us to a point of clash with the limits of our natural resources and of our ecological system. However we note that the rich countries are responsible for such a crisis. What does a "sustainable" society mean? A zero rate of growth? Zero growth would be excellent for the developed countries, if the Third World's resources are kept for the economies of waste in the developed countries. Can we conceive a society which sustains itself faced with the requirements of justice? Finally, the idea of participation means that the concentration of power and of knowledge should cease: these problems are evident, not only in the increasing militarization of the social order, but also in the more subtle tendencies of the global organization and rationalization of the political and social order, as Max Weber had already foreseen.

And the results of the Conference? Will they really mean something? It's difficult to say. I am sure of this one thing: if we aren't able, and if we don't dare to think in utopian terms, we will remain submerged in the contradictions that threaten us. We have become experts in critical and analytical thought. But our visions have been poor. In the future those without more inspired vision will drink to the last dregs our inadequate visions of today.

THE DEBATE ABOUT GROWTH AND SUSTAINABILITY AT MIT

An Indian Economist Reports to his Local Church

C. T. Kurien

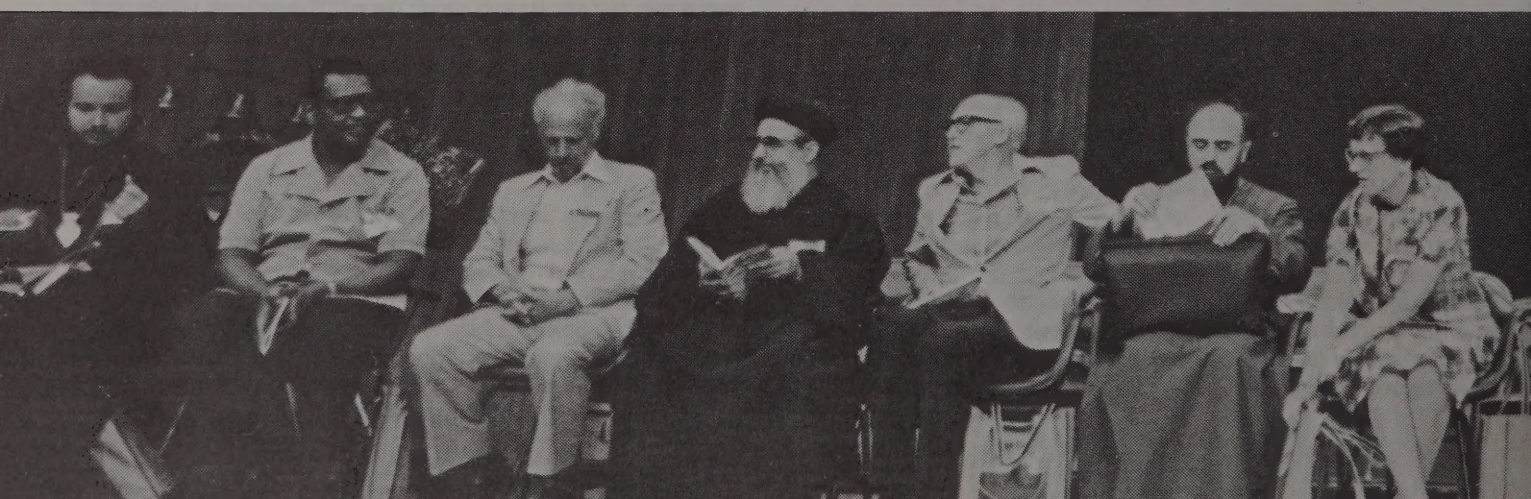
The World Conference on Faith, Science and the Future held at the Massachusetts Institute of Technology, Boston (USA) was the second conference of its kind organised by the Church and Society Division of the World Council of Churches. The first World Conference was held in Geneva in 1966 with the theme "Christians in the Technical and Social Revolutions of our Time".

The Geneva Conference dealt with four major themes, viz., Economic Development in a World Perspective, The Nature and Function of the State in a Revolutionary Age, Structures of International Cooperation and Man and Community in Changing Societies. The emergence of a large number of ex-colonies as free countries, their development problems, the competition of Western Capitalism and the revolutionary socialism to emerge as the appropriate ideology for these nascent states, the breaking down of traditional cultures in them and their urge for modernisation – these were the issues that figured prominently in the Geneva Conference. I was a participant of that conference and gave one of the plenary addresses. My impression was that the expectation about the conference was that it would provide an opportunity for the Western world, particularly the Christians of the Western world to sympathise with the problems of the poorer nations and to support them in their struggles to achieve economic development and nationhood. Powerful pleas were made by liberal Christians of the Western world to arouse the conscience of the richer nations to set aside 1 per cent of their national incomes as aid to underdeveloped countries. The mood was that of wealthy, stable and compassionate societies of the West trying to support the poor, struggling nations of Asia, Africa, and Latin America. One of the unexpected highlights of the conference was the thundering presentation of an African delegate who declared bluntly that what the underdeveloped countries wanted was justice, not charity.

After the Geneva Conference justice assumed the paramount role in the development thinking of the World Council of Churches. In an important conference in 1970 the late Samuel Parmar defined development as consisting of three elements, justice, self-reliance and economic growth in that order. In the secular world also "trade not aid" became the slogan in the encounter of the poorer countries with the richer ones. In the early seventies another factor entered prominently in the discussions on development. Till then an implicit assumption regarding economic growth was that the vast potentials of modern technology would enable the poorer countries of the world to catch up with the developed countries while in the latter growth would go on smoothly and almost indefinitely. In 1972 a publication with the title *Limits to Growth* (Report of the Club of Rome) seriously challenged this assumption and gave a big jolt to conventional wisdom on development. The authors of *Limits to Growth* argued that the resources of this planet earth were finite and could not sustain growth at the present rate even for one more century, let alone indefinitely. As to the powers of technology they pointed out that it too had severe limitations because of side-effects like environmental pollution which had already assumed vast proportions. The sum and substance of the new thesis was that what we must strive for is a sustainable society taking into account the needs of the future also and not an evergrowing society that formed the basis of many past dreams about the future.

The actual experience of growth in many parts of the world particularly in under-developed countries had shown also that economic growth even when it was quantitatively significant would not reach all sections of the society. In particular, studies of proverty in many countries of the world including in our own country had come to the conclusion that growth had little impact on the bottom third of the population. These findings led to the conclusion that the participation of the people particularly the poorer sections was necessary if growth was to become a beneficial social reality.

The Ecumenical Movement Comes to MIT! WCC Officers and Conference Presidents on the Platform for the Opening of the Conference from left to right: Archbishop Kirill, Rector of the Leningrad Theological Academy; Dr. Philip Potter, General Secretary of the WCC; Dr. James Ham, President of the University of Toronto; Bishop Samuel, Bishop of Ecumenical and Social Services of the Coptic Orthodox Church of Egypt; The Rt. Rev. Hugh Montefiore, Bishop of Birmingham, U.K.; His Holiness Karekin II, Co-adjutor of the Armenian Orthodox Church, Beirut; Ms Jean Skuse, General Secretary of the Australian



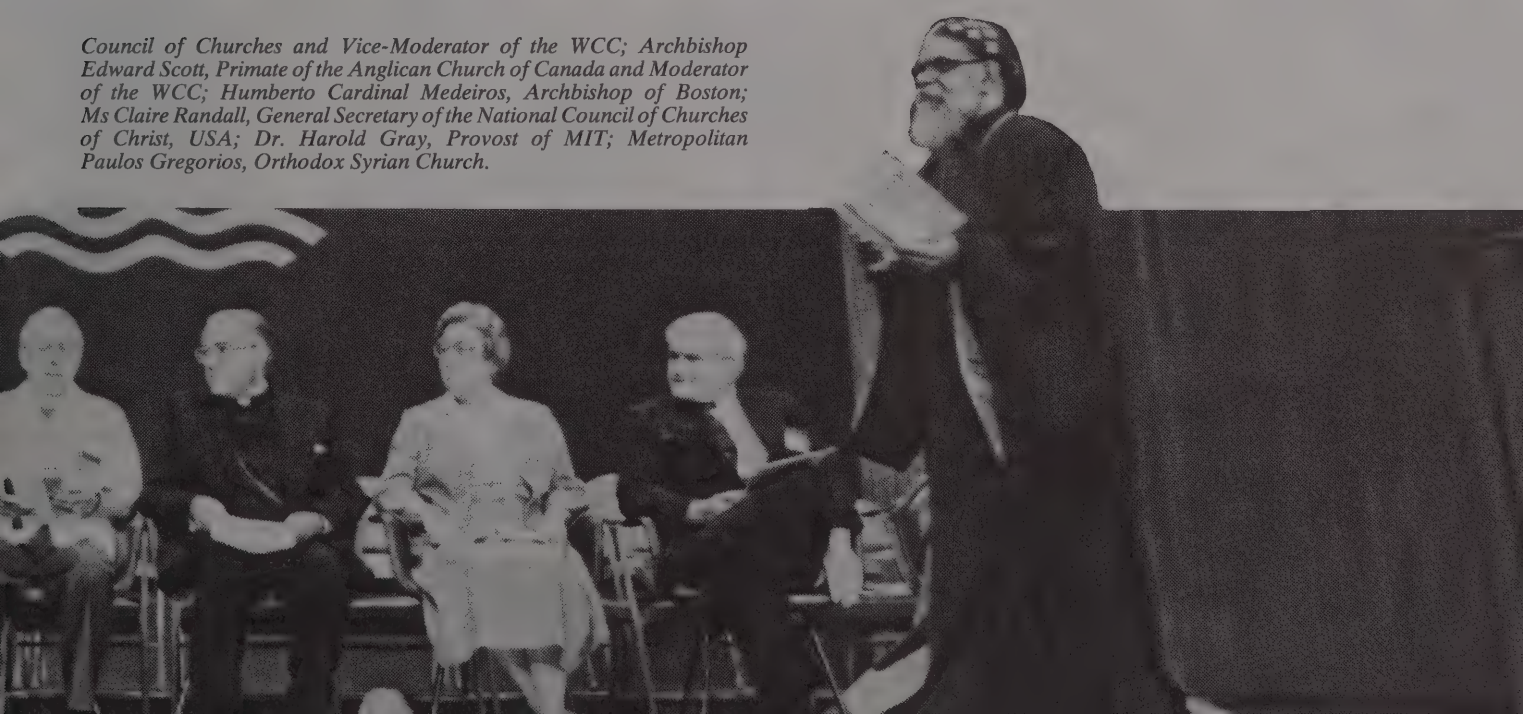
Against the background of these discussions the World Council of Churches in 1977 accepted a "Just, Participatory and Sustainable Society" as something that it should strive for. JPSS as it came to be known was the back drop to the MIT Conference. In this sense Boston was a follow-up of Geneva. However there were major differences between the two. If the emphasis of the Geneva Conference was on sociology, that of Boston was unmistakbly on technology. This was not because the 1979 conference was being held in an Institute of Technology. The late sixties and the seventies had demonstrated both the powers and the hazards of science and technology in their impact on society. Science and Technology had enabled man to set foot on the moon. This was an incredible achievement. But in the seventies the environmental problems, the threat of nuclear disaster, pollution of the air and water through industrial effluent, genetic disorders arising from chemical reaction had also become live international issues. Experiments in genetic engineering held out further forebodings. All these had necessitated serious and critical examination of the role of scientists in society. Other than theologians and church people, participants at Geneva were drawn largely from the social science – anthropology, economics, sociology, political science etc. Boston was unmistakably a gathering of scientists – the physical and natural scientists.

There was another visible difference between Geneva and Boston. Geneva concentrated on the problems of the poor world; if the rich world had problems they were not mentioned in Geneva. Boston, on the other hand, had a clear accent on the economic and "spiritual" problems of the affluent nations. America's energy crisis was the talk of the town in which the conference was being held. The nuclear disaster near Pennsylvania of March had a bearing on the deliberations of the conference. President Carter's famous television address to the people of the United Stated on the economic and moral crisis in that country took place halfway through the conference. The need for affluent countries and affluent people everywhere to change their styles of living was frequently heard during the conference.

The business time of the conference was divided between plenary addresses and section meetings. During the period of twelve days there were nearly 50 plenary presentations. The titles of some of these plenary papers will give an idea of the nature of topics that were presented at the conference – The Nature of Science; Science and Technology as Promise and Threat; Nature, Humanity and God in Ecological Perspective; Terrestrial Satellites for Human Welfare; Computer Control and Human Alienation; Technological Detoxification; New Genetic Technologies; Prospects and Hazards; The Social Risks of Large-Scale Nuclear Energy Programmes; Science and Technology as Power; Energy for the Future: Possibilities and Problems. The conference was divided into ten sections: 1) Nature of Science and Faith, 2) Humanity Nature and God, 3) Science and Education, 4) Theological and Ethical Issues in the Manipulation of Life- 5) Technology, Resources, Environment Population, 6) Energy for the Future 7) Planning the Industrial and Urban Environment, 8) Economics of the Just, Participatory and Sustainable Society, 9) Science, Technology, Political Order and a More Just World Order, 10) Towards a New Christian Social Ethic and New Social Policies for the Churches. The nearly 400 participants (and some 300 visitors and more than 100 press representatives) were divided into these sections which discussed their own agendas as well as themes arising from the plenary presentations.

It is impossible to summarise or even to touch upon the many issues that engaged the attention of the conference. I shall therefore be very selective. One of the key papers was presented by Metropolitan Paul Gregorios of India who was the moderator of the conference. The title of the paper was "Science and Faith, Complementary or Contradictory?" Metropolitan Gregorios referred to the popular misconceptions about both Science and Faith which put them in opposition to each other. Science is usually presented as objective, rational and definitive. Faith, on the other hand is considered to be subjective, emotional and submissive. Referring to many recent problems in science, the Metropolitan pointed out that uncertainty and indeterminacy had become crucial aspects of science and that subjective elements play a very important aspect in the pursuit of science, in the interpretation of scientific findings and in the inferences regarding the impact of science on society. The plenary sessions showed how very pertinent these observations were. The Metropolitan's treatment of faith was equally refreshing. He quoted Isaiah 7.9: "If you do not become supported and nourished by me, you will not be confirmed and supported" and said it is this aspect of faith

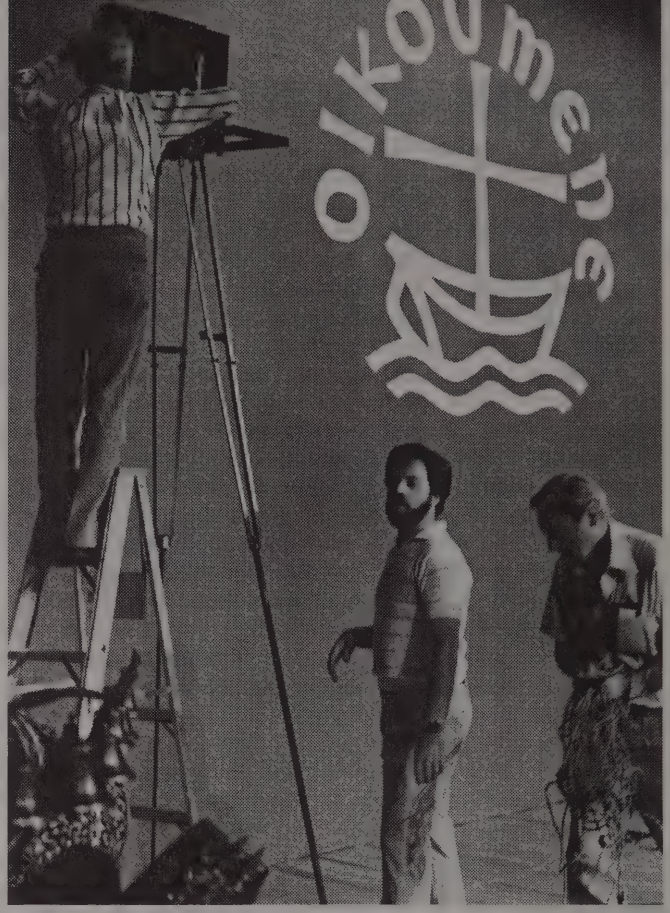
Council of Churches and Vice-Moderator of the WCC; Archbishop Edward Scott, Primate of the Anglican Church of Canada and Moderator of the WCC; Humberto Cardinal Medeiros, Archbishop of Boston; Ms Claire Randall, General Secretary of the National Council of Churches of Christ, USA; Dr. Harold Gray, Provost of MIT; Metropolitan Paulos Gregorios, Orthodox Syrian Church.



that gets overlooked. Faith, he said, "is not so much an emotional-intellectual commitment of the will to someone who stands over against you, as an allowing oneself to be trustingly carried, nourished, supported by God and the consequent strengthening and transformation of human personality and society". If this is the nature of faith it is not necessary to think of faith as opposed to science. Faith and science can be seen as two complementary processes to comprehend reality.

The discussion on nuclear energy, which was one of the main themes at the conference amply illustrated the Metropolitan's observations about science. Top nuclear scientists of the world who participated in the discussion were sharply divided in their views about the nature of nuclear experiments and explosions, the costs of developing nuclear energy and the social risks of dependence on nuclear power. Not only were they divided: it was evident that they were emotionally involved in their approach to the issue. Finally, after a round of discussions and considerably lobbying, the delegates voted in favour of a five year moratorium on all forms of nuclear explosions. This decision was one of the highlights of the deliberations of the coference.

My own involvement in the conference was with the section on "The Economics of the Just, Participatory and Sustainable Society" which included several meetings of the section and a plenary presentation. The plenary presentation took the form of a dialogue between an economist from the U.S.A. (who presented the ecological and moral necessity for limiting growth) and myself. The ecological case for limiting growth rose from the problem of running out of renewable and non-renewable resources of the earth. On the moral plane it was argued that consideration for the future generations would call for a more careful husbanding of resources today. It was maintained also that limiting growth in the richer countries would make growth easier in the poorer countries. In my response I maintained that sustainability is the catchword of those who are already satiated and that for possibly 80% of the world's population the need now was for more growth for survival and dignity. I said also that the accent on sustainability with its concern for the unborn generations of the future can easily become a cover for lack of concern for the less fortunate members of the present generation: I found it difficult to accept the argument that the reduction of growth in the richer countries could lead



Photographers take a picture of the Conference in Session. (below)

to an increase in growth in the poorer countries unless it was accompanied by a massive transfer of resources from the former to the latter which certainly did not appear to be on the agenda.

The debate on the economics of the sustainable society and similar issues dealt with at the conference also gave rise to a more fundamental question. Confronted with the many complex problems posed by science and technology, there was frequently the affirmation that new moral codes are needed to solve them. Although it was never expressed in so many words I suspected that there was a strong body of opinion that the economic and ecological crises of our times could be solved by an appropriate ethical and theological re-orientation. In the dis-

cussion on sustainable society I found it necessary to challenge this view and to insist that a thorough analysis of the societal moorings of contemporary problems was necessary before solutions could be attempted. For instance, people of good-will in the western capitalist societies now plead for simpler styles of living and even practise it in some measure. At the personal level such experiments deserve to be commended. However they are of insignificant consequence as long as the dominating economic consideration is growth and accumulation and the organisation of production is based on the principle of private accumulation. For within such a set-up no amount of pleading to limit growth and the use of resources is likely to have much positive impact. Between ecology and ethics, therefore, lies the very complex terrain of societal issues such as the ownership pattern of resources, methods of production, the relations of production, political organisations and the instrumentalities of power. Christian compassion often tends to minimise the hold and strength of these social structures. I felt that at the MIT Conference sentimentalism, often motivated by genuine concern and compassion, took the place of thorough and realistic analysis of the problems of science and society. But certainly during the short period of twelve days a large number of problems that the human family confronts today were reviewed and discussed. The conference did not solve them; that was not its purpose. But it has provided an agenda for discussion and action. It is now for all of us to see how they are to be dealt with in our own situations.

(From Kirkspire,November 1979)

A JUST, PARTICIPATORY AND SUSTAINABLE SOCIETY

The Rev. Gustavus Warfield, a pastor in New Jersey, USA, reports to his Presbytery

At the meeting of Presbytery of Newark in May my attention was gripped by a paper produced by the Committee on Ecumenism telling about a conference sponsored by the World Council of Churches at the Massachusetts Institute of Technology in Cambridge in mid-July on "Faith, Science and the Future", and about the fact that a certain number of accredited visitors, in addition to participating delegates, were being selected by each World Council denomination. As soon as I read about that I said to myself, "I must find a way to become one of those accredited visitors".

Only a few of you may know this, but my most intense interest over the years has been to search for wholeness of what we perceive through the sense about the world around us, which we subject to reason, and insights of faith centering in Jesus Christ which transcend the grasp of the mind. Knowledge that there would be such a gathering of theologians and scientists from all over the world caused me the next morning to knock on doors, and before afternoon was over I was assured of being one of the accredited visitors at the Conference representing the United Presbyterian Church.

I got hold of the basic text of background of the Conference entitled *Faith, Science and the Future* and shortly afterward two other publications arrived by mail: *Burning Issue: Christian Social Thought in Future Perspective,* a special issue of the regular publication of the World Council's unit on Church and Society, and *The Human Presence: An Orthodox View of Nature* written by Paulos Gregorios, the Metropolitan of the Syrian Orthodox Church and capable leader of the Conference. As I read those three publications, my appreciation for the richness of their content mounted. As I looked over the rigorous schedule and agenda for each of the days spanning two full weeks, I was impressed with the seriousness with which the leadership regarded this Conference.

Upon arrival at the Conference I went to my room at Boston University across the Charles River from MIT in Cambridge. There I found a nice looking shopping bag

containing an empty loose leaf notebook with rings so big that I measured them when I got home—2¼ inches in diameter—and a 100 page Handbook for the Conference. It was immediately obvious from reading the content of the Handbook that enormous preparation had preceded the Conference.

The nearest thing to the Conference I had previously experienced had been meetings of the General Assembly of our Church. Almost as many persons were there—about 450 participants, more than 200 accredited visitors, over 100 students from all over the world, and many others in various capacities. Accredited visitors were mostly white American males, some of them frustrated because seats and places for participants had been resolutely saved for scientists and theologians from all races and nations in which there are churches represented on the World Council of Churches, women as well as men.

The Conference had its roots in more than a half century of development. Concern about the relation of technology to a just society was prominent at the International Missionary Council of 1928, precursor of the World Council of Churches, at the Oxford Conference on Church, Community and State in 1937 and when the World Council was formed at Amsterdam in 1948. At each succeeding assembly of the World Council and its major conferences this concern intensified. The World Council, at Nairobi in Kenya in 1975 said, "It is the considered judgment of many scientists and technologists that the world is on a catastrophic course leading to mass starvation, global depletion of resources, and global environmental deterioration. The responsibility that now confronts humanity is to make a deliberate transition to a sustainable global society in which science and technology will be mobilized to meet the basic physical and spiritual needs of people, minimize suffering, and create an environment which can sustain a decent quality of life for people. This will involve a radical transformation of civilization, new technologies, new uses for technology, and new global economic and political systems".

The need for the 1979 Conference on Faith, Science and the Future emerged out of that concern and motivation. The task was given to the World Council's subunit on Church and Society, whose method is to identify the critical problems, search out the creative minds within the churches of the world working on those problems, bring them together, and challenge them to work on the issues and problems in a wider ecumenical context.

Gathered in Kresge Auditorium each day (morning, afternoon and evening) for two full weeks including Saturdays and parts of Sundays, was a balance of theologians and scientists, mostly lay people from all parts of the world—South and Central America, Western and Eastern Europe, Russia, the Middle East, Africa, India, Polynesia, Japan, Australia and Canada as well as the United States. Each presentation was mimeographed for distribution before delivery. Delivery was in any of five different languages—English, Spanish, French, German or Russian. Verbal translations were immediately made by persons skilled in languages through headphones like those used in the United Nations.

The primary thrust of the presentations was along lines of social justice. There emerged in many of the presentations that which today is generally called process theology, and there was clear evidence of a shift away from a theology that separates man from nature and which tends to give leeway for man to exploit nature carelessly and unjustly toward a theology which makes man part of nature and puts the accent on people being good stewards of the world's resources. But through all presentations there was one persistent and dominant thrust—social accountability. Three adjectives were used over and over and over again—*just, participatory,* and *sustainable.*

A just society is one in which individuals and social groupes—family, occupational, ethnic and national—interact for the enhancement of all. This contrasts with a society where disparity between rich and poor is great, and which increases even more by advantages already gained through technological superiority of some over others.

A participatory society includes in the process of decision-making all those whom any decision affects. This contrasts with relatively few politically powerful and technologically skilled persons making the decisions and leaving out of the process those whose lives are deeply affected by those decisions.

A sustainable society is one in which people live with one another in their physical environment in ways that lead to life rather than to its destruction. This contrasts with persisting in practices of consumption that threaten the physical environment and the resources by which people now and in the future will live.

From all points of view theologians and scientists representing all races, nations of the first, second and third worlds, and even the great religions of the world, made their presentations with a just, participatory and sustainable society in mind. There were presentations on:

- The relation of faith and science
- Science and technology as promise and threat
- The role of the state in technological development
- Working toward a sustainable energy future
- The issue of nuclear energy, both in peace and in war
- The matter of genetic technologies
- Terrestrial satellites and human welfare
- Computer control and human alienation
- Technological detoxification
- Ecological moral necessity for limiting economic growth
- Technology and oppression, and others.

The whole conference might be described as theologians and scientists from all over the world playing a rich variety of selections on keys that resonated on the same sounding board of a just, participatory and sustainable society.

There were a few hot issues, especially the future of nuclear technologies in the production of energy and nuclear warfare. Hostility was evident in many representatives from the Third World, and there was intense concern over women's rights.

The first ten days were given over to presentations. The last four days were devoted to participants, gathered in ten different sections, reflecting on those presentations and coming up with reports and recommendations. Conclusions and recommendations will be published along with the presentations for wider distribution. Not only will they be worth careful study; they will also form the basis for whatever next develops in relating faith and science in the pursuit of a just, participatory and sustainable society.

I came home from the Conference feeling overwhelmed by the complexity of the problems, the enormity of the agenda, and the diversity, volume and weight of the presentations. The task of listening to what was presented and reading the papers afterward required as much concentration as I have ever had to muster. To master what the papers contained would take a life of study and that would be only a beginning. To make a summary for my own satisfaction and for communication to others has been an exceedingly formidable task. To say the least, attending the Conference was a very humbling experience—humbling because of awareness of how many

diverse and gifted people there are at work on the problems and the issues, and humbling because of so many points of view. Humbling as the experience was, I felt as I have never felt before, that I was in close touch with where the world is and with what people out on the frontier of human progress are like.

Beyond humbling me, the Conference confirmed and increased my hope about good things happening in the world. There are problems to be solved and evils to be combatted, but at MIT in Cambridge I was aware of beholding the purpose of God, in reconciling all things to himself in Christ, inexorably moving forward. No longer is there warfare between science and religion. Theologians are interested in and knowledgeable about science. Scientists there were not only religious; for the most part they were highly motivated evangelists. They deeply want a just, participatory and sustainable society and were saying to leaders in the religious sector, "Get with it by being true to the best you are called to transmit". To behold theologians and scientists talking together about these two all-encompassing areas of life, to behold them working earnestly together for a just, participatory and sustainable society, was to realize in new ways how sovereign God is in the world, and to comprehend in wonder some of the ways he is working out his purpose in global dimensions.

Along with hope intensified in me, I saw with clarity a major dilema confronting the human race in the decades that lie ahead. Paradox and conflict make up that dilemma. On the one hand is the pervasive assumption, so prominent in the United States and shared and hoped for by those of the developing nations, that economic expansion is unlimited—economic expansion characterized by exponential acceleration of consumption. On the other hand, the resources of the world are limited. Imagine there being two billion automobiles in the world at the level of affluence of the United States. Impossible! There is not that much oil. Consider what shortage of oil does. Just a small percentage deficiency in supply produced near panic in our country this past summer. Well, the shortage of oil, which will grow more and more serious with the passing of time, is only the beginning of other resource shortages which are sure to emerge in a civilization that virtually equates success with mounting production—and consumption. Strains, disillusionment and ugliness lie ahead as people refuse to face the fact that the world's resources are insufficient to meet ever-expanding expectations. But that is where the Gospel of Christ can hit the mark, for a person's life does *not* consist in the abundance of things he possesses. The Christian faith speaks to all of humanity in this dilemma, for its central thrust is life, eternal life, quality of life here and now as well as beyond this world. In the midst of despair Christians have opportunity to lead others onward to a richer quality of life than ever known in spite of, indeed because of, the emerging limitation of material goods.

I came home with high admiration for the World Council of Churches. The World Council has been vilified by ridiculously uninformed people. I cannot here go into the causes. My judgment, having been on the spot, is quite different, for what I saw at MIT was free desire to shape the structures of human society after the mind of Christ. As I sat toward the back of Kresge Auditorium looking upon what was going on, realizing that I was participating in something which had never before happened—theologians and scientists from all over the world striving to understand one another and to work together for actualization of God's creative and redemptive purpose—I said to myself, "All this would not be happening if it were not for the World Council of Churches. I will tell others about that when I go home".

That gathering, that fellowship of theologians and scientists may well be the brightest shining light of our time, brighter even than the United Nations (though not as well known or as fully established) for the center of it is Christ, by whom all things are being made and in whom all things hold together. And I say "shining", for the Conference was but a point—a very significant point—in a continuing movement. Behind the Conference has been a half century of preparation. The Conference really is not over—it goes on—for the people who gathered in one place this summer know each other better and will be in touch with each other in many different ways. They have exhibited the consensus and have set the goal for Christians all over the world to work for a just, participatory and sustainable society. The momentum gathers. It gathers because God is moving forward inexorably with his creative purpose, crowning it with all that is involved in Christian redemption perceived now with growing richness in global dimensions. Momentum gathers because God in Christ is bringing more and more persons together in the quest for the unity of all things in heaven and on earth, and in pursuit of the new creation emerging before our eyes—through persons like ourselves serving Christ in the mission of the Presbytery of Newark, in the churches of which we are members, in the vocations we pursue, and in the citizenship we exercise.

A PERSONAL RESPONSE FROM BURMA

The View of a Student Participant — *Smith Ngulh Za Thawng*

Being my first experience of such an international and ecumenical conference, I was very delighted and anxious about it before leaving my country. I would like to express due gratitude to my government for allowing me to attend the Conference, and also to the Church and Society Unit of the WCC for their kind invitation and assistance.

For me, the MIT Conference was not an attempt to bring about the miracle of world peace, but rather an effort to make clear the problems of science and technology today and to find their possibilities for tomorrow. I came to MIT with great expectations, but throughout the plenary sessions of the Conference, with their heavy papers and very little time given to discussion, I came to feel more and more confused and sometimes disappointed. I found myself lost. I felt my helplessness coming from a powerless area of the world. I felt myself as nothing before a robot. I felt as if in a world of dreams, hanging in space over another planet. Then I remembered to ask myself: "Where are my people?"

And then I began to know what questions to ask. Where and what is the new economic order? Why the transnational corporations? Why the space ships? Why the nuclear arms race? Why the nuclear plants? Why the robots? Why inflation and pollution? Why new idols? I have no answers, perhaps because I did not listen or hear. In fact, I cannot answer because I am weak and powerless. But I am confident that the Conference will result in a concrete reply to the voices and groans of the powerless two-thirds of the world expressed throughout the meeting.

Yet I know as a Christian that God loved the world very much and gave His Son Jesus Christ. God creates the world, loves the world and sustains the world, but man destroys it, dominates it and exploits it. Man has become a rebel, the enemy of the world and of God. Science and technology are part of the riches of the world, but with them man has broken the unity of the entire creation. Reconciliation (repentance and self-surrender?) between man and man, of man with nature and of man with God, these alone can bring harmony and peace. So, any kind of oppression, exploitation or discrimination in the world must be abolished to establish the Kingdom of God on earth. But after all, I believe it is not by any might nor any power, but by the power of the Spirit of the Lord that the evil powers of today will be overcome and bring us to a more just, participatory and sustainable society.

SCIENCE AND THE THIRD WORLD

Comments from an Egyptian Science Student

Ragui Assaad

The first session of the students conference centered on theoretical matters relating science and faith, e.g., the "methodology" of each. I had little interest in these discussions since they were purely academic in nature and with minor utility. Like most of the other students, I thought it more useful to discuss how science and technology affect society, to what extent they have helped achieve a JPSS and what should be their roles in the future. A good deal of the time thereafter was spent discussing this theme. Most of us felt that science and technology have not only failed to achieve a JPSS, but have in very many instances served to enhance injustices, concentrate power in the hands of a few and create a world threatened by the depletion of vital resources and an environment polluted by industrial waste.

Throughout both conferences at Wellesley and MIT I became very much aware of the Third World perspective. Most Third World representatives questioned the benefits science and technology provide for the vast majority of Third World people. Often science and technology manifest themselves in developing countries as exploitative transnational enterprises, deadly weapons supplied by the superpowers for purposes of destruction and the formation of technocratic elites with more allegiance to the developed countries and their systems than to their own peoples. What is the answer then? Are we to eliminate the advancement of science and technology from the future we envisage? It was felt that unless science and technology are divorced from the present economic system and are geared to serve the common man rather than alienate him, they become undesirable development tools. Technology should be adapted to serve society and not the other way around.

Guided by these ideas, the participants spent several hours discussing schemes for appropriate technology, community development and ways of popularizing scientific knowledge.

During the main conference at MIT, I was part of a conference sub-section discussing energy. In several of the issues discussed, the above principle was invoked. I will focus on the issue of nuclear energy with which I was most involved. Nuclear power is an excellent example of a centralized, complex technology. It requires a very sophisticated infrastructure and huge amounts of capital, both of which are lacking in any developing country. It is not only inappropriate to developing countries due to its technological and financial requirements, but in the vast majority of cases it does not suit the country's energy needs. Most Third World industrial applications require much less than the present generation of nuclear reactors can provide, and require heat rather than electricity. A matching energy source would have to be small scale and decentralized in nature. Why then is nuclear power highly sought by many developing countries? There are several reasons. Nuclear energy is a symbol of power due to its close association with nuclear weapons. Centralized energy, moreover, enables governments to maintain control over their populations. Also, readily available funds and hardware supplied by the developed countries are a great incentive, and the supplying countries see it as an excellent opportunity to maintain political and economic control over the receiving countries. They are also eager to preserve their nuclear industry which is threatened with bankruptcy due to a sharp decline in domestic demand.

Many "soft" energy alternatives were discussed in the energy section, especially for a Third World setting. These included such things as bio-gas produced from human and animal waste, and bio-mass from agricultural waste. Animal waste is already being used as fuel in many developing countries, though quite inefficiently. These two sources alone would fulfil most Third World domestic energy needs if burned efficiently. Solar energy for heating and eventually for small scale electricity is another promising approach. As far as industry is concerned, coal-fired plants of the right size are more appropriate than the highly sophisticated, expensive and oversized nuclear plants.

Nuclear energy is but one example. There are numerous other instances where technology is being introduced without any adaptation to Third World countries, where it ends up doing more harm than good. Before the conferences, I tended to separate my scientific "personality" from social and ethical criteria. Unfortunately, most scientists do the same thing. There has to be a serious reconsideration of this attitude if science is to play its rightful role in the advancement of humanity.

REFLECTIONS OF TWO STUDENTS FROM THE USA

Tracy Gross and Harold Clark

The two of us, both graduate students from the U.S., were asked to describe our reactions to what we experienced, and we therefore write from a very personal standpoint.

The Wellesley Student Conference

The Wellesley conference was intended by its planners to give students involved in science and engineering an opportunity to discuss issued of particular importance to us and also to give us a head start at the issues of the main conference so that our voice there would be stronger and more effective. By the end of the first day of the meeting a certain amount of tension had already begun to emerge. For one thing, there was a great deal of frustration with the format of the meeting, which was modeled after that of the larger M.I.T. conference. The emphasis on producing written reports, which were ultimately to be submitted to the M.I.T. meeting, meant that often we had to cut off conversation in order to begin drafting just as we were coming to grips with an issue. There were also a number of participants who felt impelled to couch the issues in terms of a sharp dualism, who felt that the one issue underlying all the others was the issue of how the Third World is oppressed and exploited by the First. This challenge, for which some of us from North America had no thought-out response, tended to put us on the defensive at first.

Those of us from North America met as a regional group early in the conference, and most of our discussion was an attempt to help each other come to terms with being "oppressors". We felt little desire to defend the *status quo,* and we were eager to think about alternatives, particularly in lifestyles and career choices. We were painfully aware of how little attention is paid in our societies—even in our churches—to the facts of worldwide injustice and poverty. It seemed particularly important to us to find ways of bringing the challenges we faced at Wellesley back home.

Most of us confessed to feeling quite ill-prepared to counter many of the arguments used by our comfortable and conservative fellow citizens to rationalize the *status quo.* We identified two major obstacles: first, the strong commitment in North American societies to individual actions as a response to problems, and, second, a profound lack of awareness and concern about what is happening in the rest of the world. The Third World rightfully feels misrepresented by the communications media—events from abroad are reported here only when they are "newsworthy" by our standards. Thus we hear about how OPEC uses its control of its oil to apply political pressure in certain instances, but we never hear about how the U.S. uses its control of its wheat in a similar fashion. The result is that many North Americans are very resistant to the suggestion that their countries are benefiting from a flow of resources from the poorer nations. Even those who can be convinced of this tend to believe that the present situation is the result of mysterious and somehow immutable economic laws. The first step toward convincing them that our countries are part of an oppressive system that ought to be changed is to show them how that oppression works and what can be done about it. It therefore seemed important to most of us to use our remaining time at Wellesley to look for ways of doing this and to challenge the non-Western students to express to us their vision of what our nations' role ought to be in the future. For several reasons this turned out to be difficult and frustrating.

For one thing, it was often easy to feel personally attacked, as if we, as individuals, had consciously chosen to be oppressors. For most of us, facing this sort of situation was partly a positive experience, an education in the extent of Western domination over the rest of the world. Most of us from North America came away with a deeper appreciation of the suffering and poverty of most of the world's people and of the priority that issues of social justice must take over other kinds of problems. There was also some uneasy recognition that everyone who came to Wellesley is implicated in oppressive structures, whether as a citizen of an industrialized nation or as a member of an elite within a developing nation. But those of us from the West more often heard our motives called into question on account of our "vested interest" in maintaining the *status quo.* Although it was not directed at North Americans in particular, a statement from one of the conference documents illustrates this type of attack: "Inviting students who have a natural vested interest in the continuation of the prevailing systems of science and technology to this conference is a bit like asking the South African Government to examine alternatives to apartheid... Perhaps some people came to Wellesley with the idea that they had to convince us that their nations are being oppressed and exploited by ours. But most of us would not have come to the conference in the first place if we had not had at least a feeling that something is wrong with the present state of affairs and needs to be changed. It was exasperating when the heat of another person's outrage left no room for dialogue.

Another persistent problem was the lack of a common language, or a common frame of reference, for describing situations. Very often when someone described a problem in his or her country, we would be strongly moved by the anguish or outrage that he or she expressed. But the problem would often be formulated in a way that would normally make little sense to someone from North America. To illustrate with an incident from the M.I.T. conference, during an interview for U.S. television professor Enilo Ajakaiye of Nigeria was asked to give an example of the harmful actions of transnational corporations. She replied that in certain parts of Africa transnational drug companies sell drugs which are not labeled with expiration dates and transnational tobacco companies sell cigarettes with a higher nicotine content than is permitted in the West because the laws in these African countries are not strict enough to prevent these practices. And she finished her answer *right there.* The U.S. viewer's first (and last) response is that the governments of those countries should simply pas stricter laws. Those of us who have been to Wellesley know, without having to be told, that the solution is not at all so simple, because we have been shown some of the ways in which

transnational corporations exercise power over the governments of developing nations. But we cannot complete the analysis in this case ourselves; we do not have the facts. To someone from Africa it may seem incredibly simple-minded to ask, "Why can't the governments just pass stricter laws?" But this very simple-mindedness, this ignorance, this naivete on the part of North Americans has to be fully appreciated by anyone who does not wish to be completely frustrated in getting his or her message through.

THE ENERGY DEBATE AT THE CONFERENCE

David Gosling

One of the most controversial recommendations at the W.C.C.'s Conference on Faith, Science and the Future was as follows:

> We recommend to all national Governments that they immediately introduce a moratorium on the construction of all new nuclear power plants for a period of five years. The purpose of this moratorium is to encourage and enable wide participation in a debate on the risks, costs and benefits of nuclear energy in all countries directly concerned.

The delegates further recommended that existing nuclear power plants be used «only to the exent, for the purposes, and for the time, that there is no better alternative», and called for a moratorium on plutonium reprocessing. The Group which produced the report «Energy for the Future» which this article summarizes contained a minority viewpoint which dissented from the first recommendation, but the Conference Plenary approved it by a substantial majority.

Although at first sight these recommendations appear to reflect an anti-nuclear stance, it is important to set them against the wider background of the world-wide energy problem and the search for a «Just, Participatory and Sustainable Society» - the overall terms of reference for the Conference. Participation necessitates some kind of public discussion, and in so far many countries had not consulted public opinion, the delegates were more or less bound to advocate at the very least the slowing down of many national nuclear programmes. As will be argued in more detail presently, the logic of the nuclear recommendations was, in effect, that if Governments were to adopt feasible energy strategies which will not reduce standards of living, then they will very soon come to recognize that the nuclear option can be avoided, at least in the short and medium terms.

The Conference was the culmination of a series of discussions held under the aegis of the W.C.C. Sigtuna (1975) focused on nuclear energy and concluded that there is no justification «in either entirely rejecting, nor in whole-heartedly recommending large-scale use of nuclear energy». (1) Bossey (1978) broadened the scope of the nuclear debate, and produced a detailed statement dealing with the prospects of non-nuclear energy sources, the social costs and risks of nulear energy, the breeder, non-proliferation and ethical issues relating to nuclear energy. The renewable «alternatives», solar and wind energy, and biomass, were elevated to the status of fully-fledged energy sources, and it was maintained that all options, including the nuclear option, must be kept open.

The Central Committee of the W.C.C., meeting in Jamaica in January 1979, elucidated the points made at Bossey in more detail. Patterns of energy consumption and rational energy utilization deserve more attention, and it needs to be recognized more fully that the nuclear issue is symptomatic of deeper societal debates (e.g. centralized technologies). Nuclear power is a conditional good and can be neither accepted, nor rejected categorically.

The texts of the 1979 Boston Conference make no claim to replace these earlier reports, but rather set them against the kind of global perspective which is only possible at such a massive gathering of representatives from all over the world...

1. Energy and the Just, Participatory and Sustainable Society

The Report begins by defining the energy supply problem in terms of shortages of conventional fuels such as coal, oil and firewood. On the one hand the demands of the developing world for energy to meet basic human needs are increasing rapidly; on the other the developed world is using energy so intensively that serious social and environmental stresses are being incurred...

Solutions must be global and need to be sought after within the context of long-term desirable social goals. For the purposes of the Report as a whole "long-term" is taken to mean the period beyond the end of the century; "medium term" is the period in which decisions about to be made will be largely determinant (i.e. the next 10-25 years), and "short-term" stands for a period in which decisions and investments already made will apply (i.e. the next 5-10 years).

The Report proceeds to recognize the ethical dimensions of the energy problem. Churches and other concerned groups must address themselves to such issues as the extent to which fuel sources may be shared in order that the basic needs of the poor be met. Attention must also be directed to the degree of risk to the health of present and future populations, the amount of damage inflicted on the environment, and the extent to which social stability and the freedom of the individual may be impaired as a result of particular energy choices. The Churches must inculcate a critical awareness of these issues among their members, encouraging them to identify and clarify prior commitments and values, and to engage "in continuing reflection and critical study, so that we become aware in time of wrong choices, have the humility to acknowledge error, and seek to change direction."

Echoing a constantly recurring complaint, the Report warns of unreliable energy forecasts:

> We are wary of forecasts of what 'the energy situation will be' over long ranges of time. 'Who decides' will influence both the present and the future directions on policy. We detect a bias toward technocratic decisions, toward decisions by national elites, toward developed countries making decisions

which affect countries, and toward an overemphasis on economic factors over against political and moral considerations. All countries are beginning to ask profound questions about the consequences of their present energy choices for the nature of their society in the future, and the acceptibility of risks involved in alternative choices.

The Recommendations addressed by the Conference as a whole to the Churches stress the importance of representative participation in scientific decision-making by "all classes and groups of the population with full access to relevant information." They also call for the identification and involvement of scientific and theological experts in the energy debate, the formulation of ethical criteria by which the social impacts of energy technologies must be assessed and the different factors weighted, and the development of appropriate educational materials relating to energy and suitable for different levels of church life.

Nationally and internationally Christians must engage in a constructive and critical analysis of energy policies; locally they must experiment "with a lifestyle which makes appropriate use of the available energy sources, and endorse the W.C.C. programme on "Energy for My Neighbour"...

The Report continues with definitions similar to the ones already given of justice, participation and sustainability, and mentions some of the dilemmas which emerge in the formulation of energy policies:

> Simply, economic and political pressures push toward short-term fixes, but the underlying social, ethical, technological and resource problems require longterm strategies, and many of these different approaches conflict. There is therefore a narrow way to be sought, one which calls for a more fully informed, properly motivated, and alert people... It must be emphasized that education and participation alone may not provide the justice we seek or assure the proper choice of sustainable sources of energy with appropriate balancing of benefits and risks. The proper choice can evolve only following independent study and research. Unfortunately, the majority of education and training programmes in the advanced countries are financed and directed by government agencies and in many cases the primary objective of these agencies is to support preconceived notions and decisions, to perpetuate their existence, (and) to devalue research data that are contrary to their official position... A major responsibility of this conference is to uncouple this bias and assure free and more unfettered education, training and research programmes in all countries of the world such that properly educated people may understand and judge the issues in an intelligent manner.

2. Basic Energy Needs

Basic needs in a just, participatory and sustainable society were defined, and distinguished from mere wants "which derive from adopted life-styles", and are not basic. Food, shelter, clothing, resources, services, and non-material needs relating to human fulfilment, the sense of meaning and the quality of community life,were stressed. Attention was drawn to the adverse environmental impact of many energy intensive agricultural and food processing methods largely in the West, and a basic conflict in developing countries between demands for energy for food and non-food export cash crops and energy for domestic food production...

It was recognized that badly insulated houses in industrialized countries are responsible for considerable energy wastage and that a medium term strategy is urgently needed to rectify this situation. Industrial infrastructure was devised when fuels were cheap and plentiful, and requires drastic changes. The automobile epitomises a particularly acute form of fuel wastage:

> The automobile is the symbol of the industrial society. It seems to embody and fulfil the longing for human freedom; yet it also imprisons us in the urban culture which it has helped to create. There is a mythology of the automobile which would bear examination in greater depth. Considerable changes will be needed in the field of transport if energy, and in particular energy from fossil fuels, is to be used more efficiently... The automotive industry, a cornerstone of present industrialized societies, has been very closely linked with political authorities in creating the present situation. However a too brusque change of strategy could have a destabilizing effect on the economy and lead to wide-spread unemployment. During the time of transition, attention must be given to increasing the energy efficiency of the car and of its use (for example, by imposing speed limits), to providing for public transport, walking and cycling, and to urban planning for lower energy-use cities.

Having defined the energy problem and specified basic human energy needs, the Report proceeds to outline energy strategies appropriate to the attainment of a just, participatory and sustainable society.

Widespread uncertainties in energy forecasting prompted the Group to recommend to all national Governments that they "study the actual use of all forms of energy in their countries," and "base the forecasts of future energy demand on the real needs for different forms of energy in the different sectors of consumption; rather than on extrapolation from aggregates of past fuel consumption."

During the first half of 1979 two major publications appeared which seriously question many of the presuppositions on which earlier energy forecasts have been based. The first, by Gerald Leach and members of the International Institute for the environment and development, charts what it describes as a low energy strategy for the U.K., and demonstrates, systematically, "how the U.K. could have fifty years of prosperous material growth and yet use less primary energy than it does today".(2) The second, by members of the Harvard Business School, underlines more generally many of the points made by Leach, and claims that the U.S.A. could use thirty to forty per cent less energy than it does "with virtually no penalty for the way Americans live."(3)

Prior to the estimates put forward by the I.I.E.D. and the Harvard Business School it would have been difficult to argue convincingly that so-called "soft" energy paths could be pursued without substantial reductions in lifestyles. But even prior to these recent studies some Governments were already beginning to shift their policies away from "hard" energy paths. These different paths correspond to the following three fundamental energy strategies for the future:

a. *The "hard path"*. This involves large-scale, capital-intensive, centralized technologies depending on large amounts of nuclear fuels and coal for the middle-term; in the long-term fossil fuels would be phased out entirely and breeders, and possibly fusion, relied on increasingly.

b. *The "soft path"*. The technology is small-scale, less capital-intensive, decentralized (e.g. solar heating,

biomass), emphasizing conservation technologies (e.g. co-generation, passive solar heating). In the middle term the transitional use of coal is anticipated, while in the long-term solar and other renewable energy sources will be used.

c. *The "hard-soft path"*. Most government planners and energy specialists claim that all options need to be pursued. This constitutes a third strategy, which results in a mix of policies and technologies depending on the availability of regional, natural, financial and industrial resources.

The report recommends a "hard-soft path" which in the short and possibly medium terms does not involve more nuclear power. But in the long term no options should be excluded *per se*.

4. Short Term Options and Risks

Energy conservation - defined as the just, rational and efficient matching of energy systems to energy needs - is of major importance both in developed and developing societies, though in the former it should not be implemented in such a manner as to increase economic disparities within those societies. Strong Government intervention will be necessary to get conservation programmes off the ground.

Coal will be an important source of energy in the short term, and its enhanced use in less industrialized countries will enable them to further develop their industries prior to adopting renewable energy technologies. But coal burning is not as benevolent as is frequently supposed, and climatologists are currently concerned about the possible long-term effects of a build-up of atmospheric carbon dioxide producing the so-called "greenhouse effect". Some maintain that the effects could be so serious as to produce irreversible climatic changes such as the melting of the polar ice caps.

If conservation is implemented on a large-scale and coal is increasingly utilized particularly in developing countries, "no additional nuclear capacity will be required". At this juncture two points of view emerged within the Group and are reflected in the Report as majority and minority statements. Advocating a limited moratorium on nuclear power for the short and possibly the medium term, the majority adduced the following arguments:

Nuclear power, as such, cannot have a significant impact on atmospheric carbon dioxide build-up for a long time. On the other hand conservation measures which would double the efficiency of automobile engines and/or building insulation could dramatically reduce the rate of production of carbon dioxide by the end of the century. Thus the carbon dioxide problem cannot be a decisive factor in deciding for or against nuclear power.

Furthermore, a limited nuclear moratorium would enable nuclear technologists to resolve technical questions relating to reactor safety, standards of radiation protection, effective international safeguards, and the disposal of high and low level radioactive wastes. It would allow investment capital to be rechannelled from nuclear expansion to energy conservation, and provide a breathing space for appropriate financial arrangements to be made to cover the costs of decontamination...

The majority claimed that a reduction in the spread of nuclear power facilities would diminish the risk of nuclear warfare and "be of great assistance in bringing the entire question of disarmament, proliferation and safeguards into much sharper focus".

Discussion of the short term role of nuclear power generated a considerable amount of passion, though it was never acrimonious, and the Group as a whole was able to do its work in a spirit of ecumenical fellowship. A minority dissented from the proposal for a five year moratorium...

5. Medium and Long Term Options and Risks

In the medium term oil supplies will diminish, and if coal burning is to be reduced, further conservation and the increased use of wind and solar devices, biomass and hydro-electric power will be necessary. These offer possibilities for decentralization, more participation in decision-making, and labour-intensive methods appropriate to the needs of the rural poor. Although their environmental impact is small it is not negligible, since there is a limit to the rate at which these technologies can be introduced...

The Report proceeds then to say:

> Nuclear systems would lead to the establishment of highly centralized authoritarian governments and levels of surveillance of civilians, both of which militate against the ideal of a participatory society.

It was argued that nuclear power is becoming exorbitantly expensive for most developing countries, and that it is now virtually impossible for them to acquire nuclear hardware without becoming politically dependent on the major powers:

> This poses the ultimate political dilemma of Third World countries: to be dominated by the military power of the nuclear states or to be dependent on them for developing nuclear weapons capability.

In the long term very little coal will be needed, and both industrialized and developing countries will obtain much of their energy from the renewables. Nuclear burners, breeders, and, possibly, fusion may ultimately have a role to play. The Group was unequivocal in its conviction that, in the long term,

> No options should be excluded *per se*, but for the short and medium implementation of the huge potentiality as yet untapped of the soft option.

The Report's concluding paragraphs consider the difficulties involved in weighing various presumptions in order to arrive at concrete decisions:

> The process of weighing such major risks and benefits, and the resolution of conflicts between them is one that can be undertaken only by societies as a whole. Churches do not, any more than governments or other concerned groups, have a monopoly of insight into such matters. But they must nevertheless play a role in the decision-making process, insisting on the seriousness and magnitude of the issues, the urgency of facing them squarely, and offering, where possible, to provide a forum in which the ethical factors can be elucidated and debated.

(1) Francis J. and Abrecht P., eds., *Facing Up to Nuclear Power, Saint Andrew Press, 1976, p. 200.*
(2) Leach G., *A Low Energy Strategy for the United Kingdom*, Science Reviews Ltd., 1979, p. 9.
(3) Stobaugh R. and Yergin D., *Energy Future*, Random House 1979, p. 11.

THE PROBLEM OF FAITH, SCIENCE AND THE FUTURE AS IT LOOKED AT THE END OF THE CONFERENCE

Report to a German Church Magazine by a Biologist-Theologian *Günter Altner*

The Conference did not succeed in combining the recommendations of Section V ('Technology, Resources, Environment and Population'), which went into significant detail, with the reflections on energy and disarmament policy and in integrating them into a unified concept. One of the main reasons for this was that Section VIII ('Economics of the Just, Participatory and Sustainable Society') was unable to agree on any draft recommendation worth speaking of.

Neither was it possible to integrate the findings of Section IX ('Science and Technology, Political Power and a More Just World Order') more closely into the Conference's conclusion. In addition to its very carefully worded statements on the problems of armaments technology, this Section provided a realistic inventory of the shortcomings of previous policy with respect to the transfer of technology: resource depletion, prevention of an appropriately diversified infrastructure policy, cultural disintegration, engendering of social contradictions, mistaken consumer demands, and growing dependence on transnational economic groups. The political explosiveness of the Conference's apparently very un-political theme ('Faith, Science and the Future') was once more highlighted when the report of this Section finally urged churches in the developed countries to cooperate with the churches of the Third World in introducing a new technological transfer policy by a programme of education, political influence, and civil disobedience against government and industrial monopolies.

Because of the pressure of time and a questionable method of conference management, all of these issues led to a huge tangle of problems which to the end of the Conference, remained largely unintegrated. Yet, in this something of deeper truth becomes visible. When we raise the question of the just, participatory and sustainable society today, all the questions discussed in Boston must be dealt with together, without falling into the trap of overhasty ideological 'solutions'. The 1979 Boston World Conference was unable to complete the framework of thought begun at the conferences in Geneva (1966) and Bucharest (1974). It also proved, moreover, that the Geneva hope of being able to guarantee solutions by a makeshift "theology of the and" was thoroughly mistaken.

But the theological and political importance of the Boston Conference should not be underestimated on the grounds of its diffuse diversity. Some conclusions may be drawn from this survey.

1. In organizing the Boston Conference, Paul Abrecht was right to set the discussion between faith and science in the horizon of eminently practical problems (technology transfer, energy policy, genetic engineering), to bring it into the question of a just, participatory and sustainable society. This discussion must be continued in small working groups. In this continuing study the Section II title, 'Humanity, Nature and God', could serve as a general function of holding the other section themes together. While the Boston discussion between scientists and theologians was irreproachable in that it displayed no trace of an atavistic hostility to science and technology, the theologians were nevertheless embarrassed by the high expectations that the scientists held for it; expectations which went unmet. In the concept of 'wholeness', envisaged by Paulos Gregorios and Charles Birch as a bridge-concept, there lies undoubtedly a goal of past controversies. But, the attempt to recover this lost 'wholeness' will only succeed when theology and the sciences grasp that the crisis of survival is also a crisis of the seemingly unquestionable epistemological basis of their sciences and their knowledge. Only than will it be possible to appropriately unfold the epistemological, technological, social and practical political aspects of the dialogue between science and faith.It should play its part by inquiring more critically than did Boston into the presuppositions of 'wholeness' in the establishment of a 'theology of life'.

2. Judged by its theme and the course it took, the Boston Conference was seemingly more 'un-political' than previous conferences. This came to many as a relief. Above all, the opposition between socialism and capitalism appeared to be blunted. But no one should be relieved because of this, for the problem posed by the theme of the just, participatory and sustainable society is not just one of social ethics. In fact, it is a supremely political problem, one which carries us far beyond the traditional debate between socialism and capitalism. As the discussions in Boston made clear, the exploitation now transferred to the Third World and into the non-human habitat by means of science and technology must be seen as the continuation of the social exploitation of the 19th century by 'improved' means. All political systems today are implicated in this exploitation. Those who really wish to respond to the political challenge implicit in the theme of the Boston Conference must be willing to identify themselves materially and pratically with those minorities which are today seeking to achieve alternatives in the crisis of technological civilization: the ecological movement, the women's movement, alternative science, Third World groups, *et al.* All these groups were grossly underrepresented at the Boston Conference, even though the Church seemed to be concerned with their problems. We cannot confer about the conditions of a new relationship between humanity, nature and God unless, as Church and Christendom, we recognize the era of human history in which we are entering as signalling a final hour, and enter into new alliances in our human life. The coalitions to be sought today cut right across our normal groupings. This impinges not only on the situation in our domestic policies but also in that of our external policies. At all events, it is countries such as Sweden and Holland which have succeeded in the past in refusing to let themselves be completely dominated by the monolithic trade unity of western industrial countries.

3. The Boston Conference took place against the background of disintegrating but still influential ideologies: mechanism, capitalism, Marxism. As we seek to adapt to this situation of crisis, we are in danger of falling into a new introspection or taking refuge in an irresponsible apocalypticism. In his theses on technology and science, which Herbert Marcuse was still able to present to this

year's Römerberg colloquy, the philosopher warns us of the dangers of a false introspection and offers us a criterion for distinguishing between a genuine and a spurious inwardness: any sort of reflections or published recollection which fails to keep Auschwitz in mind, which dismisses the memory of Auschwitz as unimportant, is flight, escape from reality. A view of progress which does not see the world as one in which Auschwitz is always still a possibility is an abstract view in the pejorative sense. The authenticity required of us here obviously demands a far more radical view of the basis of human solidarity than any entertained hitherto. It is not a question of one race or class alone, of Europe or the Third World alone, but of the whole inhabited earth. Those who are prepared to go as far as this recoil in horror from that "Auschwitzian" avalanche of destruction and suffering which threatens to destroy this earthly habitat altogether. But they also experience the freedom which sustains them as a freedom which can only be imparted through suffering (as active struggle or solidarity on behalf of others). *A theology of life can only be a theology of suffering.* The wholeness to which many are appealing today has a price-tag attached to it: the surrender of our own particularly.

From Boston to Vienna

In a reflection on the Boston Conference, a comparison with the UN Vienna Conference on almost the same theme is inevitable. And when one seeks to compare the Boston WCC Conference and that of the UN on Science and Technology for Develoment (Vienna, August 20–31, 1979), it is tempting to assign Boston to the "idealists" and Vienna to the "realists".

In Vienna it was a matter of strict power politics. The developing countries associated in the Group of 77 wanted an action programme for the transfer of technology, billions for additional development aid, and stricter control of the increased resources. Such demands were bound to be rejected in view of the defensive alliance among the industrial countries who achieved unity despite the West-East conflict. The Vienna Conference had two tangible results: Instead of the international committee for science and technology demanded by the developing countries in which these countries would have a majority, the Conference created a subcommittee of the Economic and Social Council (ECOSOC) in which the industrial countries have a predominant influence. Instead of the billions to be raised by levies on export surpluses, the Conference finally decided on a special fund with voluntary contributions (250 million dollars each for two years) to the UN Development Programme. After hotly debated textual amendments, nothing remained of the action programme but a torso on which no vote was taken.

Only on the fringe of the Conference was there any discussion of the real theme—"Science and Technology for Development"—i.e. in the NGO Forum and in some bilateral discussions between individual industrial countries and developing countries. The failure really to tackle the conference theme was also due, of course, to the strongly divergent interests of the developing countries which prevented them from showing a united front. Paulos Gregorios—speaking as an invited guest to the Vienna delegates—urged them to discuss the question of national and international power structures. But this, too was avoided, as was the theme of the quest for ecological and social criteria for the transfer of technology. It is still to be feared, therefore, that the social and ecological impoverishment and exploitation of the Third World will go on increasing as a result of the mounting imports of technology into these countries. Only then, presumably, will people be ready for a changed pattern of trade transcending the blocs.

The just, participatory and sustainable world society is a distant, very distant utopia. Those who help to hinder its attainment by a short-sighted, backward looking policy of self-interest are not as realistic as they may imagine, since they are actually undermining their own future prospects. On the other hand, those who, in spite of growing tendencies to exploitation and destruction, nevertheless seek to open up the way to the just and participatory society are doing the most realistic thing in a world which is off-course. The very fact that the Boston and Vienna Conferences, despite the similarity of their themes, diverged so substantially, cannot but be regarded as an urgent warning *Mene tekel* by those who know that we cannot continue in the same old ways.

Hermann Hesse once said: "Political wisdom no longer lies where political power lies. If disasters are to be prevented or even mitigated, an influx of intelligence and intuition is needed from non-official circles."

SCIENTISTS AND CLERGY DEBATE GLOBAL PROBLEMS

A Scientist-Theologian Reports to **Nature**, *a Science Journal in the U.K.* *A. R. Peacocke*

An unprecedent World Conference on "Faith, Science and the Future", organised by the World Council of Churches, was held at the Massachusetts Institute of Technology last July. It drew many threads of the WCC's previous work together and was structured around four central themes: science and faith, questions of ethics, of political economy, and plans for Christian action in relation to science and technology.

Three hundred and thirteen delegates from 56 countries attended. About half of them were scientists and technologists and half were theologians, pastors, social philosophers and politicians. More than 100 students also attended. Many church affiliations were represented and a few representatives from other religions, including Islam and Buddhism, were present. With such a mix, it is not surprising that strong feelings were expressed, especially when topics for discussion included nuclear weapons, genetic engineering, nuclear and other forms of energy and the impact of western science and technology.

Delegates from the "Third World" were about a third of the total and rapidly constituted themselves as a pressure group. It soon became clear that they experi-

enced "science" primarily as technology, a technology moreover that is having an enormous and disruptive effect on their societies, with the transnational corporations cast as the principle agents of their ills. Their frustation and sense of exploitation was expressed in a resolution (not a resolution of the whole conference) in which a number of them said: "we denounce the historical and current use of science and technology by industrially and technically advanced societies, to serve military and economic interests which have brought about great sufferings to the people of the Third World. This has been done in the guise of an ideology of objectivity and value-free pursuit of truth." These attitudes produced first shock and then strong opposition from western (or, more accurately, northern) scientists and others present who regarded the pursuit of knowledge of the natural world as valuable in itself and knowledge, once achieved, as ethically neutral.

This particular tension became apparent early in the conference in the contrast between the account of science, given by Professor R. Hanbury Brown (astronomer from Sydney University), as "a social activity in which we seek to discover and understand the natural world" and that of Dr Rubem Alves (philosopher, Brazil) for whom "most of the explanations that science proposes about itself are not only untrue; they are dangerous", as dangerous as a wolf to Third World lambs. There was clearly a wide gulf of misunderstanding between these two typical western and Third World per spectives on science—and indeed technology should have been substituted for science in many of the discussions and even in the conference title.

It is hard to judge if this gulf was really bridged, but the western-trained scientists, technologists, economists and theologians were uneasy with the inadequate treatment, especially in the section meetings, of conceptual and critical issues such as the status of scientific models, the limitations of scientific knowledge and how scientific research projects are engendered and financed. However this was inevitable in such a mixed gathering and the concern was expressed in section recommendations which requested the WCC to initiate smaller and more professional study conferences on particular assigned problems. These kinds of recommendation are more likely to be implemented than worthy, but doomed-to-be-ineffectual, instructions to those outside the churches such as the recommendations of one section to governments on nuclear energy, and those of another to "governments, industrial companies, universities and scientists" to make scientific and technological information more accessible to all citizens.

Matching in intensity the Third World issue, was the desire of the delegates to show their unambiguous support for nuclear disarmament. Confessing "the part played by science in the development of weapons of mass destruction and the failure of the churches to oppose it", the delegates were unanimous in their endorsement of a resolution (drafted by a committee chaired by Dr J. Habgood, Bishop of Durham) that called for full implementation of SALT II, advocated SALT III, supported UN initiatives on disarmament and opposed the development of new nuclear weapons. However, one proposal for unilateral disarmament was overwhelmingly defeated.

The other aspect of the nuclear problem, the 'peaceful' uses of atomic energy, also led to lively controversy. Professor David Rose, of MIT, argued for the continued use of nuclear energy at least until solar energy is developed, which means in practice, for several decades. But Professor J. Rossel, a Swiss physicist, argued equally strongly against its use. Not surprising the section report concerned with this issue was divided and at the plenary session a keen debate resulted in the passing of a resolution, by a 129-45 vote, that called for a 5-year moratorium on the construction of nuclear power plants. My impression was that this majority included a large number of votes from among the 100 student representatives who, although neither strictly delegates of their churches, nor appointed as experts, had full voting rights.

The students, from 55 nations, had met before the conference at Wellesley College, Boston, to discuss the key issues. They asserted *inter alia* that science education is not tying social values to the teaching of technology and this theme was also heard when they reported their views to the main meeting. They were again especially critical of science education which they saw as an elitist weapon used to preserve power and instituionalised values.

This raises the wider question of how representative the conference was. But, representative of whom? Certainly it voiced the profound concerns about science and technology of many active members of the Christian churches across the world, which, it must be stressed, are increasing rapidly in the Third World. It is difficult for such a conference to claim to be 'representative', but it might nevertheless aspire to leadership of opinion resulting in action. If it does, the hopes over many years of the devoted staff of the WCC (and one thinks particularly of Dr. P. Abrecht, the director of the Church and Society unit that was responsible) will have been justified. And, in the end, the most remarkable thing about this unique conference is not so much its plethora of resolutions and its section reports (yet to be published) but the fact that it was held at all—and in MIT. The relation of the Christian churches to modern science and technology can never be quite the same again.

THE CHURCHES QUESTION SCIENCE AND TECHNOLOGY

An Italian Science Student Participant, Reports on the Conference in **L'Unità**, *the Daily Newspaper of the Communist Party of Italy*

Pietro Comba

The World of Prophets and Missiles

Summer 1979 – it is exactly ten years since men first set foot on the moon, and already those days seem very far away. Space-craft still exercise a certain fascination (slightly diminished by the recent mishaps to Skylab), but in everyone's mind now the most important spaceship is the Earth itself as it travels onwards on a course we are none too sure about ourselves, but which seems to be studded with unknown factors and perils. Scientific and technological development has an important part to play in determining that course, and it is essential to reflect on the prospects which it may be opening out for mankind.

In the past, this complex of problems has been raised in discussion in the Christian churches often in a merely

fragmentary way. This year, after long preparatory work, a world conference on "Faith, Science and the Future" was successfully organized by the World Council of Churches and took place from 12-24 July at the Massachusetts Institute of Technology (MIT), Boston, USA. The WCC is an organization for the association and coordination of a large number of Christian churches. Active participants in the WCC are Protestants and Orthodox representing some 400 million persons; Catholics are still studying the question of possible ways in which they might join, but they already collaborate in many of its activities and initiatives. The MIT meeting was attended by about 500 persons, including many young people, designated by various churches. They included about 300 research workers and technologists, 100 economists and sociologists, and 100 priests, pastors and theologians.

It is obviously not possible in a limited space to deal with all the topics raised. However most of the addresses and debates had a common guiding thread, that of seeking to clarify the role of science and technology in deciding modes of development; to inquire what human values are associated with various possible types of development; and to suggest to the Christian communities topics for reflection and practical initiatives.

A global approach to the themes of growth was worked out theoretically in the early seventies by a group of researchers at MIT; their findings were published in the paper on *The Limits to Growth*. At a few years' distance, that approach still seems valid: the problems created by the exhaustion of natural resources, the increasing energy shortage, the growth of population, intensified pollution of the environment, cannot be tackled separately, one at a time; their connections have to be understood. What is sought in particular is a model of "sustainable", that is to say, ecologically feasible development; such a model would enable society to use resources without exhausting them or, in the case of non-renewables, make it possible to limit their utilization.

It is impossible to speak of ecologically balanced development without reference to the present unjust distribution of natural resources and of energy consumption between European and North American countries on the one hand and the majority of African, Asian and Latin American states, referred to as "developing countries", on the other. This latter expression is called in question by the scientists and political leaders of these states, who point out that in fact it is impossible to assume any automatic transition to development, since under-development is a condition which will inevitalby last as long as power relations oblige the majority of mankind to provide a privileged minority with raw materials and cheap labour.

What clearly emerged was the role of the armaments traffic in stifling the chances of development of a large number of states. Armaments manufacture and preparation for new wars employ an enormous number of research workers who are thus withdrawn from work in sectors such as agriculture and health, and also place an enormous burden on the budgets of many young countries. The world envisaged by the arms-exporting countries, our own included, is necessarily an insecure world in which new conflicts continually arise and possibilities of international collaboration are limited. On questions connected with the arms race and the sale of arms, the churches havelong been silent, making themselves accomplices of the situation just described. These responsibilities are aggravated by the fact that most of the large exporters of arms are countries of Christian culture and traditions.

There are many other themes connected with scientific and technological development on which the churches have not intervened in a credible and constructive way, either by actions or words (and even the words spoken by a church, that is, its preaching, can be a form of action).

The Christian Concern for the Future of Humanity

A few examples of the Conference discussions have been mentioned. Obviously there were no definitive conclusions; what there was above all was a determination to study the great problems concerning the future of humanity. There was also a call addressed to Christians not to regard their own faith as a ready-made catalogue of remedies for the problems of society but as a key to the interpretation of reality so that it can present credible values to the individual and the community. It was noted that there are many pointers for biblical reflection on the relations between the individual, nature and society.

The idea of man's dominion over nature developed parallel to a philosophy that depicted nature as a vast factory, with man in charge of its efficient functioning and seeking to derive maximum profit from the available resources. Hebrew thought, on the other hand, maintained that at the origin of the universe stands a divine plan, providing for a balanced world in which men would enjoy the fruits of the earth by dividing them fairly and without exhausting them. The acquisition of knowledge by man (the fruits of the tree of the knowledge of good and evil), did not come about in a way that was in harmony with that plan, but broke it, and relations between men were established on a basis of violence (the murder of Abel). Man found himself in conflict either with other men or with nature, and continued to struggle in such conflicts; only certain prophets, such as Isaiah, spoke of a future when balance would be recovered. The early Christians also, in continuity with the religious traditions of ancient Israel, likewise perceived the links between the redemption of man and the advent of a natural reality less characterized by suffering, as may be seen exemplified in St Paul's Epistle to the Romans.

It is possible to outline an ethics relating to man in his natural and social context. Thus the Christian concept of "agape", that is, love between human beings which reflects God's love for mankind, can represent a challenge to the logic of the arms race and to the use of science as an instrument of oppression, and it can provide a stimulus to seek new roads to travel.

In particular the need to translate the indications suggested by one's own faith into practical choices here and now (which has always been a central point in Protestant ethics) is now associated with the search for a collective witness borne by the whole community.

The present-day ecological crisis, raising the question of the model of development followed until now, calls for the re-thinking of many values that have been uncritically accepted in the past. At the same time, new values are taking shape, and it would be interesting for the churches to have the prophetic ability to adopt them before they become commonplace and are discounted. The industrial revolution, in the course of innumerable conflicts, saw the emergence of values such as the balance between hours of work, rest and education, and in some cases the churches were active in promoting this kind of claim.

In our times, other demands are taking shape: general problems such as the need for fair development on a global level, and also problems of the individual, such as the right to physical and mental health. There is a utopian element in these expectations, whereas the arguments of those who say that everything must stay as before appear much more reasonable. Yet Christ himself brought a message which contemporaries thought scandalous and insane, and it is precisely that message which can show how to oppose the real scandals such as human exploitation, and real forms of insanity, such as nuclear war.

Sound and Image

Films and other Arts at MIT

There was an unsually positive response to the arts, especially film at the historic MIT event. Major documentaries on the themes of the conference were shown, as well as feature films such as the Polish masterpiece, "Illumination", which depicts the search of a young man for meaning in life through science and religion. Viewers of "Things to Come", a film classic based on H.G. Wells book, were astonished to see how film artists in the 1930's saw the future and the debate about the boundaries of science. In addition to regular afternoon screenings many films, mainly short symbolic animation, were shown in plenary sessions. Films featured in the Science Students Conference, the official visitors' programme; Plowshares operation, and other events related to the Conference. They were also shown continiously over closed circuit TV when plenaries were not being transmitted.

But it was the short symbolic film statements at the opening of some sessions that provoked the greatest excitement. Most were non-verbal animation showing again that this form of communication may well be the clotest thing we have to a functioning Esperanto!

There are literally thousands of films (many made for TV) around the world which are relatively unknown, and which could be used effectively if people were more aware of their existence and it was easier to secure them. The spontaneous reaction to the screenings at MIT was many requests for such information. These came from participants, especially those from the "two thirds world", from Hollywood procuders and TV researchers, as well as from individuals with a zeal to create ecumenical movement in their local parishes.

To help all these people and others who may be interested, we have compiled a list of the films and TV programmes shown at MIT with some indications about prime distributors. However, it should be noted that distribution is the biggest problem preventing a wider sharing of these and similar films.

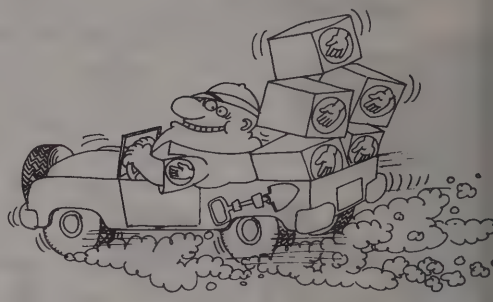
Of course ordering a film is not as simple as ordering a book, especially internationally. Most film distribution takes place nationally. The problems of mailing costs, customs, delays and even loss make it impractical to operate an international library and such exchange takes place only in special situations. The best place to start your search is with your church or National Council Media Centre.

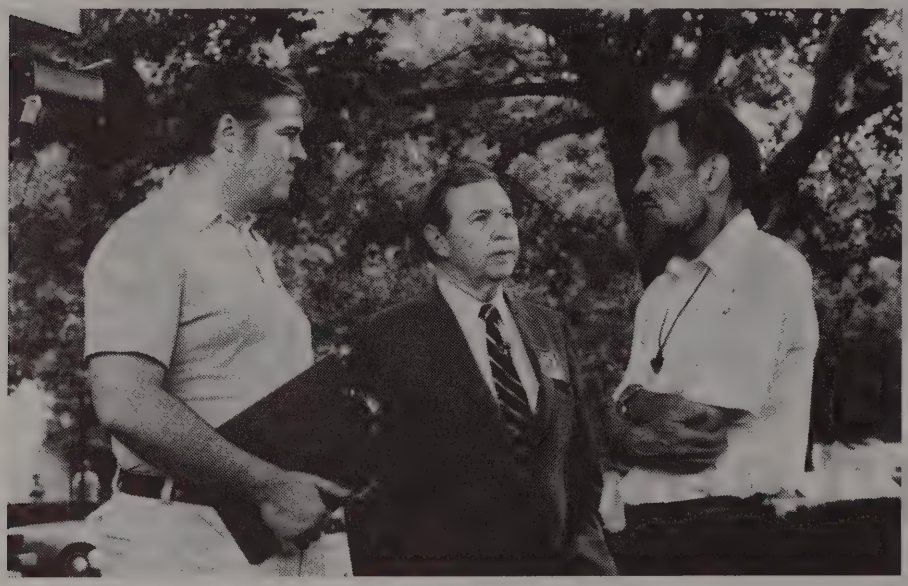
If the films you need are not to be found in your country you can contact the producer and try to buy a copy. In some cases it may be neces-

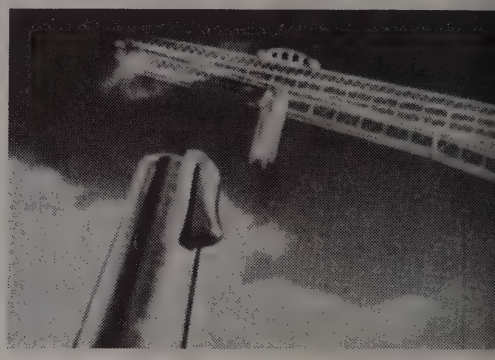
sary to buy the right for your country since some prime distributors sell the legal distribution, area by area, and do not deal in single copies. This may mean entering into agreements with other groups interested in the same objectives.

Films provide one of the most effective means of sharing information and feelings. Group Media emphasises the use of indigenous arts and not necessarily the new technology. But films remain the most widely used form for this group work which itself provides the bast setting for real two-way communication which can open the way to real change in attitudes.

Even though there was little budget, and even less time on the official program for the arts,it was a clear that people can be enriched by what artists are saying with sound and image. We saw again that even in a meeting so loaded with speeches and mimeographed papers other forms could speak and speak eloquently. In all this it was shown again that film, this art of the 20th century, can help to spread the word.

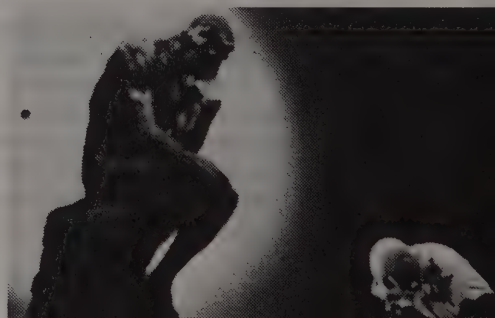






With all the enthusiasm about films at Cambridge, Mass., the above points are raised to avoid disappointment for those who might enter naively into a film programme. But to those who accept the challenge it can be one of the most rewarding things that can be done to increase dialogue and understanding.

Many requests have come from institutions and individuals asking for help in presenting a "mixed media" programme similar to the one used at the closing of the conference. The core of the presentation is the film, HOMO HOMINI, (preferably on 35 mm for quality of image, and especially to do justice to the powerful music by Czech composer, L. Fisher). The other key element is a collection of slides which we can provide of the MIT encounter. Even better would be to use pictures relevant to the time and place of your programme. If you want to make a variation on this presentation or stage a complete film programme you can write Film Oikoumene, WCC, Geneva



Far left:
Joe Clement, producer/director Douglas Edward the host of the CBS Shows, talks to Professor David Rose in the last of four CBS TV programmes on Faith, Science and the Future – for the series "For Our Times".
Prof. Rose received the 1979-80 James R. Killian, Jr. Faculty Achievement Award at MIT and in April 1980 gave the Killian Lectures on contemporary issues of science, ethics and spirituality.
Yushi Nomura puts up the daily film poster. Followed by a frame from Helping Hand, two frames from Things to Come and two from Homo Homini. Lower right, Zanussi's film Illumination.

DOCUMENTARIES

THE GENE ENGINEERS 50 mins.
A NOVA film on genetic engineering.
Time-Life Multi-Media, Room 32-48, Time & Life Building, New York, N.Y. 10020.

BENEFIT OF THE DOUBT 45 mins.
A film that examines the dilemmas of nuclear energy – a dramatized documentary based on the WCC Conference on Nuclear Energy in Sweden, 1975.
IKON-TV, Borneolaan 27, Hilversum, Netherlands.

MULTI-NATIONALS – The Reality of the Media 50 mins.
A tough Dutch TV film that looks at the powers which control the message internationally, and
TRANS-NATIONALS – Media in Colombia 50 mins.
Another major film on the need for a new international information order.
Richard Price Television Associates Limited, 4, Albermarle Street, London W1X 4DH, England.

CENTERBEAM 20 mins.
A film by Richard Leacock on a big art happening created by MIT's Center for Advanced Visual Studies.
School of Architecture, Massachusetts Institute of Technology, Cambridge, Mass. 02139, USA.

CONTINUING CREATION 50 mins.
A TV film which examines the wonders and problems of science and technology.
NBC-TV, Rockefeller Plaza, 30, New York City, USA.

MARGARET MEAD – A PORTRAIT BY A FRIEND 50 mins.
A film portrait of Dr. Mead.
Museum of Natural History, Central Park West at 79th Street, New York, N.Y. 10024, USA.

HIROSHIMA NAGASAKI 35 mins.
A documentary made from footage of Japanese camerman filming just after the holocaust.
Yale University Film Department, New Haven, Conn., USA.

INTO THE MOUTHS OF BABES 30 mins.
A new documentary on the "bottle babies" scandal as seen in the Dominican Republic.
National Council of Churches in the USA, 475, Riverside Drive, New York, N.Y. 10027, USA.

WE'VE ALWAYS DONE IT THIS WAY 52 mins.
Factory workers at Lucas Aerospace organize to transform their products for war to tools for peace.
California Newsreel, 630, Natoma Street, San Francisco, California 94103, USA.

SANGHAM 30 mins.
Indian villagers work together to demand human rights and development.

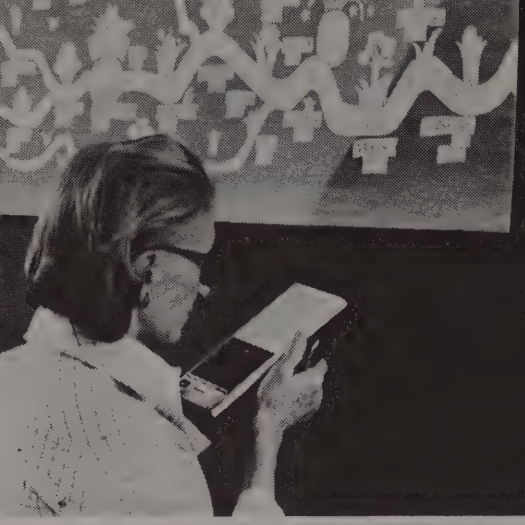
TOOLS OF CHANGE 30 mins.
A fresh look at appropriate technology.
Both films available from Teldok Films, Schillerstrasse 52, 7800 Freiburg, Germany.

MEDICINE OF LIBERATION 30 mins.
Primary health care as a part of national development in Mozanbique.
World Health Organisation, Avenue Appia, Geneva, Switzerland.

BEHOLD ALL THINGS NEW 28 mins.
The WCC Assembly at Uppsala '68.

UPPSALA TO NAIROBI 12 mins.
Highlights of ecumenical history from Uppsala to Nairobi.

TO BE UNITED AND FREE 16 mins.
Report on the Nairobi Assembly.
All available from Film Oikoumene, WCC, 150, route de Ferney, 1211 Geneva 20 or from film libraries of the member churches.



The Church and Society sub-unit has a unique history in the World Council of Churches. Formed in 1954 during the first major restructuring of the World Council, it was then and has remained a "study" department, serving churches which could not yet act together but could at least begin to think together.

Study (or reflection/action as it is now called) on social questions marks the very beginning of the ecumenical movement. The first ecumenical meeting on Christian Life and Work in Stockholm in 1925 was a study conference. So was the Oxford meeting on Church, Community and State in 1937, perhaps the most important ecumenical event of that time. It was convened to shape the churches' role in the social conflicts during the critical period prior to World War II.

SEEDS OF HEALTH 44 mins.

The WCC's Christian Medical Commissions view of a model of health care delivery as seen in Guatemala.

Available from Film Oikoumene, WCC, 150, route de Ferney, 1211 Geneva 20 or from film libraries of the member churches, in English, German, French and Spanish. (A 25 minute English version only can be purchased from Religious Television Associates,) 315, Queen Street East, Toronto, Ontario M5A 1S7, Canada.

The above mentioned World Council films are available to developing countries at special low prices.

ANIMATION at MIT

Most of these films are non-verbal.

ACCELERATION

History of the world of technological advance in 2 minutes 20 seconds, which asks "what is progress"?

MISCOMMUNICATION 4 mins.

Non-communication between individuals.

HELPING HAND 2 mins.

Statement on paternalism between rich and poor – charity to glorify the giver – with the help of the media.

PREACHER

A 1 minute statement on the way the Church often projects itself in the Media (in this case TV).

HOMO HOMINI 11 mins.

Shown at the close of the MIT Conference – asks the question "what can technology do and what it cannot do".

HEALTH OF MAN 1 min.

Prochazka comments on the wonders of medical science and asks – "to what end?".

ART – The history of art in 3 minutes!

All available from Film Oikoumene, WCC, 150, route de Ferney, 1211 Geneva 20, Switzerland.

WOW – Women of the World 10 mins.

Women through the ages – with a demand for liberation and equality.

Film Oikoumene, WCC 150, route de Ferney, 1211 Geneva 20, Switzerland and Pyramid Films, P.O. Box 1048, Santa Monica, California 90406, USA.

SELF SERVICE 10 mins.

One of the most popular films at MIT. The Italian animated film maker, Bozzetto, examines the question of the human environment in a hilarious look at "a mosquito civilization".

OPERA 10 mins.

Excerpts from "Grand" Opera provide the context for a series of outrageous comments on our society.

FANTA BIBLICA 10 mins.

A mixture of biblical images and outer space.

LA PISCINA 8 mins.

A gentle comment on a man and his environment. Grand prize at MIFED.

All available from Bruno Bozzetto Film, Via Melchiorre Gioia 55, 20124 Milano, Italy.

DE FACTO 10 mins.

Dunov's comment on the collapse of a new housing area which is really about "passing the buck".

SMART VILLAGE 10 mins.

The solution to one problem creates another.

SATAN IN THE CHURCH 9 mins.

Examines the possibilities of the title.

All available from Filmbulgaria, 135, Rakovsky Street, Sofia, Bulgaria.

When the WCC was formed in 1948, the study of social questions was given high priority. The agenda at the time included: social responsibility in the midst of the ideological struggle; the new search for European cooperation; and the meaning of work in a technological society.

With the formation of a Church and Society department in 1954 this work expanded rapidly. The two notable study projects in this period were - Christian responsibility and rapid social change in Africa, Asia, Latin America and the Middle East (1954-1961); and later The Christian Response to the Technical and Social Revolutions of Our Time (1961-1968). This work led up to the 1966 World Conference on Church and Society.

The Church and Society method is very simple: find the critical problems, search out the creative minds in the churches working on those problems and challenge them to think and act in the wider ecumenical context. This formula has produced a whole series of new action programmes, declarations and publications on such issues as racism, development, a new economics beyond marxism or capitalism, alternative energy sources, and the newly emerging concern about genetic engineering. This work has helped the ecumenical movement to chart its course and discover some of its finest leadership in the process.

The current programme on science and technology was launched at the 1968 WCC Assembly at Uppsala, Sweden. The first phase began in 1969 on the theme "The Future of Man and Society in a World of Science-Based Technology". Then the Nairobi Assembly in 1975 proposed an extension of this programme. That decision and the further engagement that followed has led to the 1979 Conference on Faith, Science and the Future.

SCENES WITH BEANS 13 mins.

A brilliant example of the animation of objects in this case beans that "play" the role of humans in a space odessy that asks many questions.

Hungarofilm, Bathori U.10, 1054 Budapest, Hungry.

FOR YOUR PLEASURE 4 mins.

A delightful look at the destruction of our environment.

BIGGER IS BETTER 10 mins.

The monstrous development of modern cities.

Derrik Phillips, c/o Derrik Hill, 122, Wardour Street, London, W1, England.

THE FLY 10 mins.

A symbolic film – one of the most popular at the Science Students Conference, about a fly and a man. (There are numerous critical interpretations of the meaning of the film).

WEEK-END 10 mins.

A film on old people in society.

DIALOGUE 1 min.

A film about non-communication.

OPTIMIST-PESSIMIST 10 mins.

A impudent film comment on the paradoxes of contemporary life.

All available from Zagreb Film, Vlaska 70, Zagreb, Yugoslavia.

HUNGER 10 mins.

A powerful film (made with the *aid* of a computer) focusing on the shocking gap between the consumer society and the desperately poor world. This film, by the late Peter Foldes made a profound impact on the Conference.

COSMIC ZOOM 10 mins.

One of the longest zooms in film! Zooming from a boy fishing in a boat to outer space and then back through the hand of the boy to the vast universe of inner space.

Both films available from the National Film Board of Canada, P.O. Box 6100, Montreal 101, Quebec, Canada.

THE EDIFICE 4 mins.

A segment of Saul Bass's "Why Man Creates" explores the history of humanity up to the present with style, humour, and meaning.

FRANK FILM 10 mins.

A masterful use of collage. This film understandably won most of the major awards in the year of its release.

POWER OF TEN 10 mins.

A film by Charles Eames which illuminates visually a mathematical principle.

All available from Pyramid Films P.O. Box 1048, Santa Monica, California 90406, USA.

SIRENE 8 mins.

The Belgian artist, Raoul Servais examines man's abuse of the earth.

Raoul Servais Films, Belgium Animated Film Centre, 7, Tussen 'T Pas, 9000 Gent, Belgium.

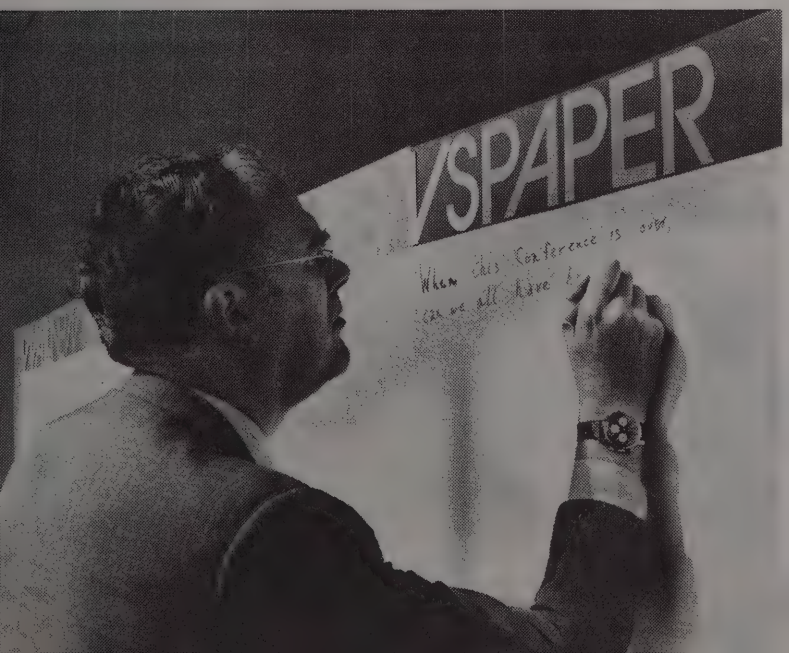
PICA DON 12 mins.

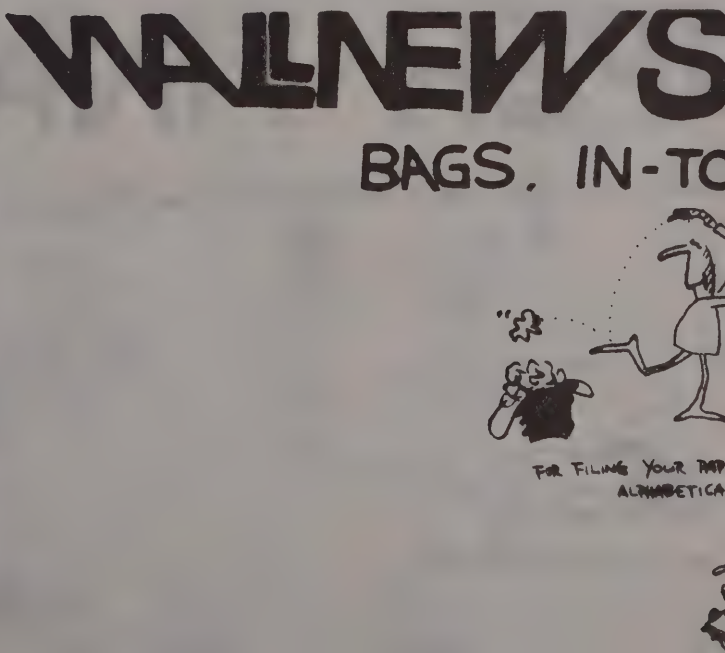
A team of Japanese artists illuminate what it must have been like to be in Hiroshima when the bomb was dropped.

Animation Studio Lotus, 405 Meison Azabu 5-13-14, Roppong, Minato-ku, Tokyo, Japan.

Note: Boat, Wave, End of the Game, Overture 2012, Energy in Perspective and scores of others were screened in smaller groups and details about these can be secured upon request to Film Oikoumene.

Below:
The installation of "The Ten Commandments Today" exhibit at First Church. Harvard Square, is supervised by Jay Buell who schedules the North America to church art centers and museums.
BBC correspondent Gerald Priestland writes his comments for the day on the wall newspaper.
The drawings of Yushi Nomuru, Japanese artist, provides a special edition of the wall newspaper on the closing day.





Betty Thompson, Communicator for the Methodist Church, USA, served as moderator of the Conference Press Committee.

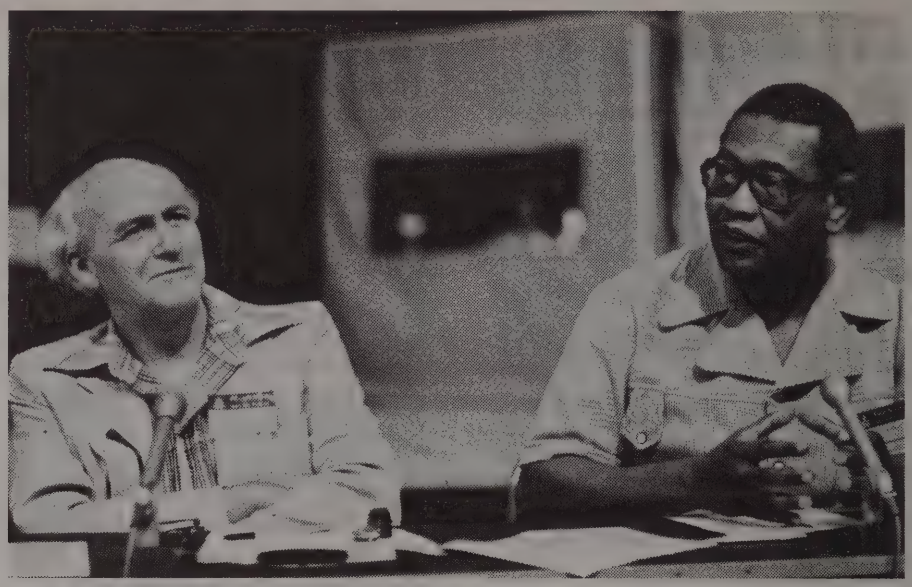
THE EXHIBITIONS

The various exhibitions at MIT were conceived to play quite different yet complementary roles. The general exhibit on the ecumenical movement was designed to inform the participants, more than half of whom were attending their first ecumenical conference and knew little about the WCC or Church and Society. This general exhibit is one that national or even local groups can duplicate in a reduced or expanded version with new elements relating to the time and place of use. Some of the texts and images are included in this issue of *Anticipation.*

The computer component of this exhibit is not so easy to duplicate. It was built by Gil Galloway (identify?), and could answer questions as well as fill the screen with images. It produced illustrated answers to queries about the World Council, the Programme to Combat Racism, the life and work of Philip Potter, and some less serious responses to issues raised by the Conference. In short, we thought it good to have a bit of fun with technology – especially in this citadel of science.

THE TEN COMANDMENTS TODAY

This provocative exhibition of colour photos by some of the world's greatest photographers is now touring museums and church art centres in the USA. Its American première was held at Union Theological Seminary, and is now available form the "Religious Communities for the Arts", United Church of Christ, 297 Park Ave. South, New York, N.Y. 10010. Tel: 475 2121. Copies of the exceptional books published to complement the exhibit accompany it.



Bishop Hugh Montefoire chaired the press conference with great style. Here Dr. Potter is featured.

FEATURE FILMS

ILLUMINATION – Directed by Krzysztof Zanussi – 92 minutes

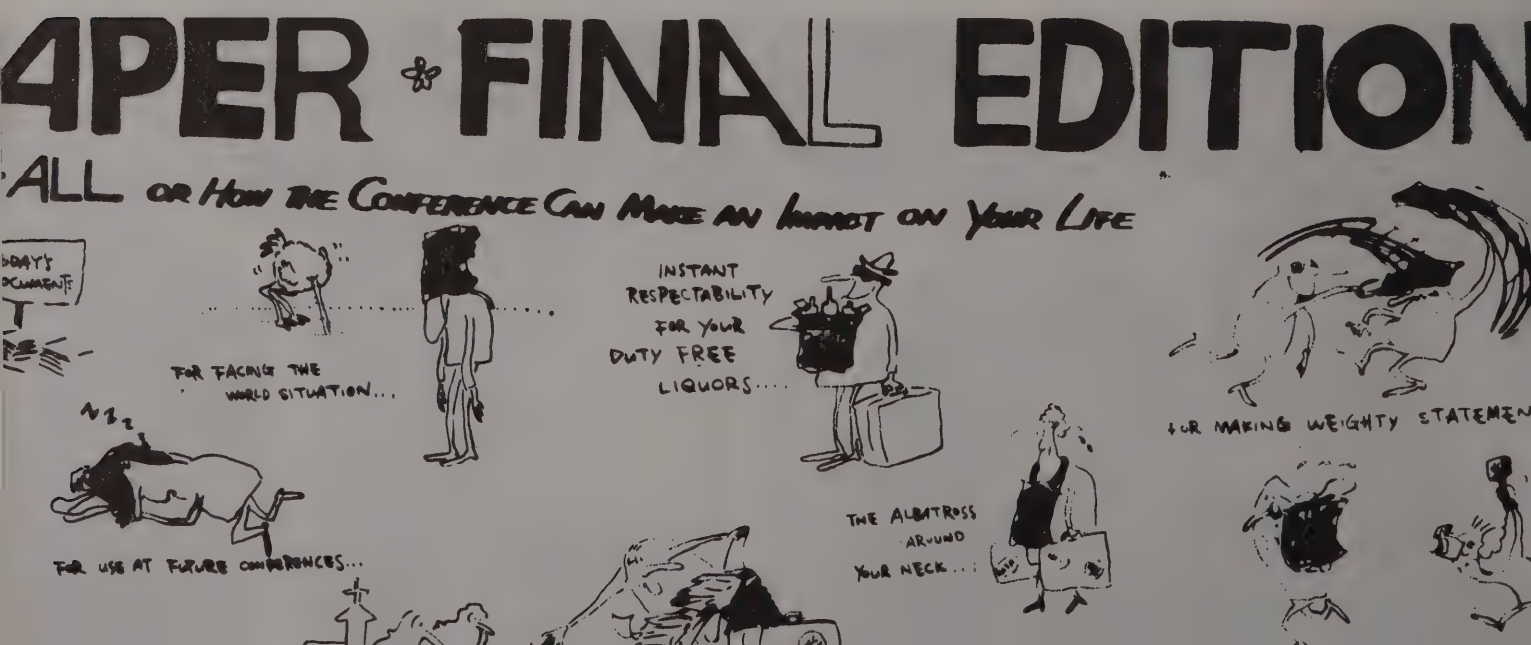
A young man in Poland searches for meaning in science and religion. "Zanussi is a visual poet in the tradition of Wadja. Each expression is scribbled on the board with an eager haste and an unfailing accuracy that leaves the spectator breathless. The Year's Best Film", – International Film Guide.

Film Polski, 6/8 Mazowiecka, Warsaw, Poland.

THINGS TO COME – Directed by William Cameron Menzies. Produced by Alexander Korda. Written by H. G. Wells. – 90 minutes.

This film classic released in 1936 has much to say to us today. "H.G. Wells' imagination projects us into the future when the world has almost been totally destroyed by a world-wide war begun in 1940 and lasting until 1966. Time is projected into the year 2036, when a few scientists who have survived, join together to form Wings Over the World to restore order, law and civilization. How they combat the remaining forces of evil and rebuild civilization only to come full circle again, is one of the most fascinating stories of all time."

Institutional Cinema, New York



Gil Galloway, American visual media expert, tests a new ecumenical show on his "magic computer picture machine" programmed in the basement of Kresge Auditorium.

he made, were a reminder that technology can excite the eye and stimulate the spirit.

WALL NEWSPAPER

We were delighted by the number of people who participated in the Wall Newspaper–or "democracy wall", as it is called in China. For those who have expressed the wish to have something similar, it should be said that it is technically very simple. All you really need is a wall and a roll of paper which you put up every day. It helps for someone to start it off with a bit of graffiti. Yushi Nomuru and I did a few cartoons and photocopies of things to encourage the process but the real fun came from the delegates. It was a delight to see Gerald Priestland, the BBC correspondent, writing his daily comments.

John Taylor

WHAT IS LIFE?

The exhibit of "WHAT IS LIFE? – An Architecture for Integrative Systems", was in fact, a preview of a larger display developed at Boston University.

The primary shape used thoughout the display is an isosceles triangle. It corresponds to the Greek symbol, *delta*. The smallest modules, called "the delta modules", list the sponsors of the display. The next units contain books and reprints by the scholars. On modules standing 90 inches, the works of the scholars are summarized. The tallest modules, standing 120 inches, display summaries of the work of boldly speculative thinkers. The back faces of these modules, which form the outer limits of the exhibit, contain statements by other scholars about hopes and expectations for the future.

KINETIC ART

The Center for Advanced Visual Studies, unique in creating art with the aid of the new technology, is only a "stone's throw" from Kresge Hall, the site of the Conference. Although we were not able to commission Otto Piene, the head of this unique centre, to do a major work for the occasion (some of us had hoped for a space sculpture to soar high above us to symbolize the fact that something special was happening here), although there were no holograms or laser beam designs on steam curtains rising in the evening air, we were fortunate to have some of the works by Sienna, a fellow of the centre, who re-activated some of his Kinetic art for the occasion. His "gas works" made with mechanical elements, tubes filled with gases and activated by tiny computers which

film oikoumene

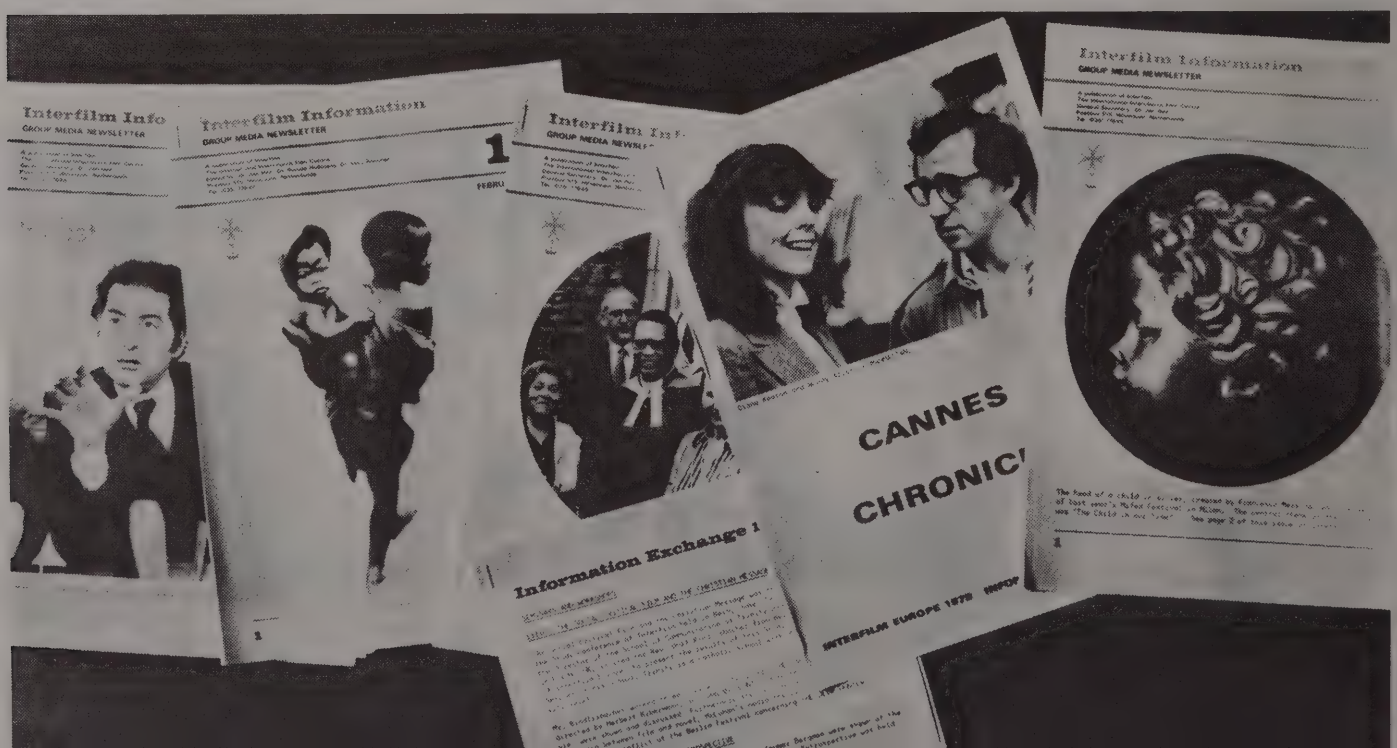
In organising a film programme it is best to check first with your churches' national media office. If they do not have the films "in stock" they should be able to direct you to sources that specialise in specific areas of concern. For MIT we tried to obtain most of the films through North American distributors to avoid all the problems involved in sending films across national frontiers. A list of the major distributors in the USA of films for use in group media activities can we obtained by writing to Film Oikoumene, WCC Geneva.

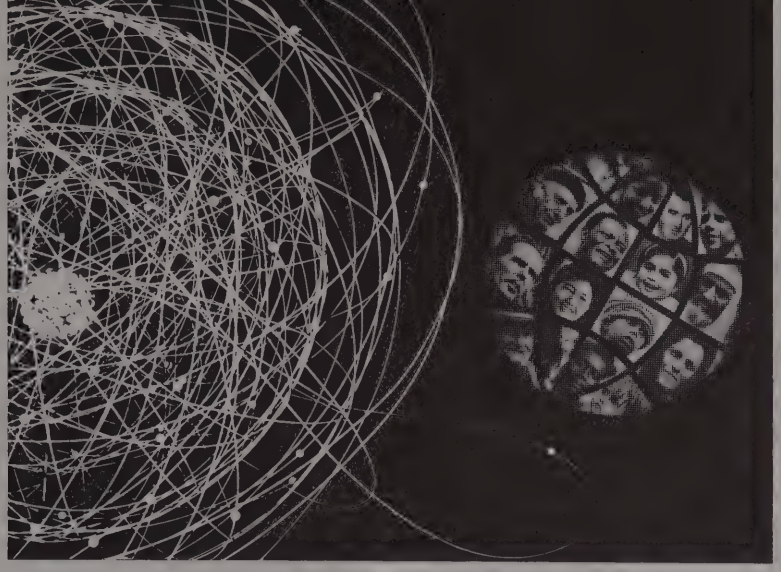
THE INTERFILM CONNECTION

If you want to keep up with the cinema in the world and what some Christians are doing about it–subscribe to INTERFILM INFORMATION.

INTERFILM is a progressive international protestant film organisation which identifies with the aims of the World Council of Churches. Personal membership is $2.50 (25 Dutch Guilders) and includes Interfilm publication.
Subscription to newsletter and information exchange is $6.25. Corporate membership (organizations) $100.00. Personal membership in developing countries $6.25.

Send your name and address to:
Interfilm
Postbus 515
Hilversum, Netherlands





Communicating Science in a Participatory Society

by Eileen Francis

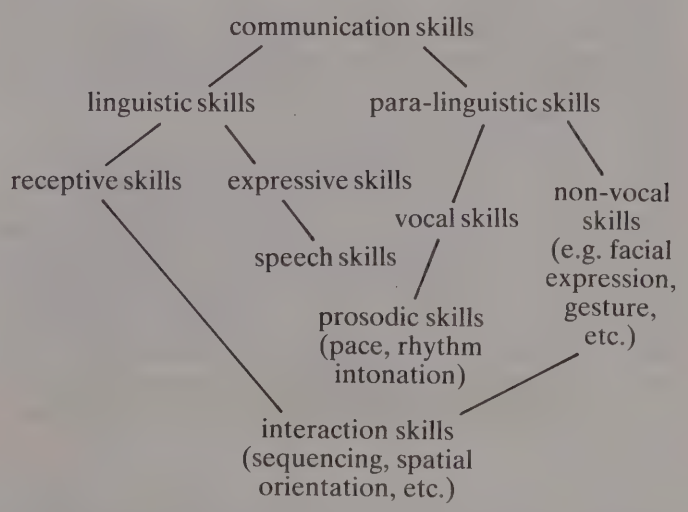
"Where there is no participation there is no communication" (Paul Tillich)

The concept of the participatory society discussed at the W.C.C. Conference on Faith, Science & the Future, has been a recurring theme in the social and psychological sciences, particularly during the sixties and seventies. There are flourishing examples of participation both within and without institutions, but as yet such experiments tend to be isolated examples and there has been little documented analysis of why or how they have been successful. It appears reasonable to suggest that there can be no reliable guidelines for a more participatory society until the conceptual framework of what is meant by 'participation' has come under scrutiny and that such an analysis cannot be made without the help of the communication scientist.

The point at which the communication scientist can be most helpful is in analysing the causes of communication breakdown in the one to one situation (the dyad), in the small group or in the large group. There are reports from institutions in the U.K. where such analyses have been undertaken, which provide interesting reading e.g. *A Life Apart* (Miller & Gwynne 1972), the analysis of the communication processes in a residential institution for the disabled; "The structures of a system of defence against anxiety", an examination of relationships within a hospital and "The teacher, the school and the task of management" (Richardson 1973), a report of the development of a school in transition from grammar/secondary modern structure to a comprehensive system.

The communication scientist derives his/her skills from the disciplines of linguistics, phonetics, and the psychological and social sciences. The effective practitioner will have had training in counselling and analytic group work and may have a background in health care, education, social or pastoral work. A model for the communication analysis which he/she will be skilled to undertake might be represented by the following diagram:

Diagram 1.



Communication Skills

It is a constant revelation to many people that 'language' does not constitute the whole message. There are still those who believe that if their arguments are succinct and coherent with evidence of scientific and technological validity they should prove acceptable. Video-analysis of decision-making or public communication can demonstrate how mistaken this view is. The words cannot be divorced from the meaningful elements of non-verbal communication such as intonation, stress, voice quality, facial expression and gesture or from the interactive elements of group process.

Conferences tend to focus on the linguistic component. The communication model used is usually a pedagogical model, the expert transmitting his message to a large group. Participation is often intended in the

form of questions following a presentation, but rarely satisfies the majority of the group as the questioning procedure itself is perceived as being circumscribed and ritualistic. These activities are part of a closed system and are often managed by a hierarchical leadership which can be perceived as being authoritarian. The address or sermon in a church context is another example of this so-called 'closed' system. There is no possibility of interaction in this situation at all.

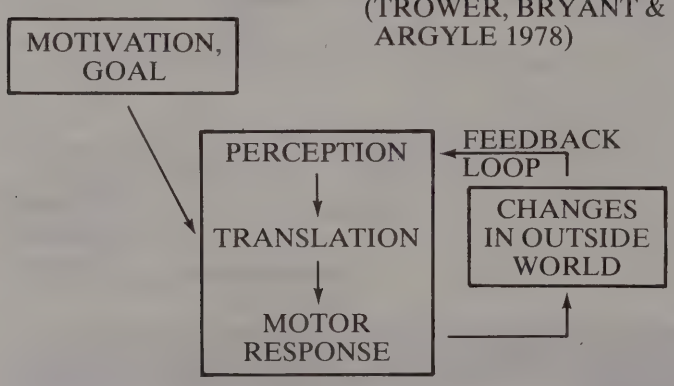
It is ironic to talk about a participatory society in such a setting, as this can only be achieved by an open system approach where the transmitter of the messages earns his authority through interaction with his peers and the demonstration of the relevance of his message to their needs, rather than through the hierarchical role of 'expert' whose authority comes from a constituency outside the group. The goal of the open system is self-actualisation and the dynamics of this approach foster independence and inter-dependence and a leadership which can be shared and transferred with relevance to the task in hand. In contrast the closed system is static, roles and hierarchies promote dependency and in time become out of touch with the primary task, becoming increasingly distracted from it by secondary issues.

A participatory model which is more appropriate than one which is pedagogically based is the social skills model:

Diagram 2.

SOCIAL SKILLS MODEL

(TROWER, BRYANT & ARGYLE 1978)



The socially competent speaker is expected to take account of the motivation surrounding the interaction between himself and his listener and the goals he wishes to achieve. He is aware that interaction operates on the basis of perception and that his perceptions are shaping and monitoring his cognitive and behavioural acts. He is aware that unless he reacts to the shifts which occur in the behaviour of the listener, communication breakdown may result.

The social skills model implies that each time the speaker takes up his role he is responsible for maintaining the interaction and that failure can more often be found in the communication behaviour of the transmitter than in the behaviour of the listener.

In every interaction the speaker strikes a balance between controlling behaviour and rewarding behaviour. An element of control is important so that the message of the speaker appears authoritative, but without an element of reward the message may be perceived as too threatening or inappropriate to the listener. How does a leader such as President Carter maintain this balance between controlling and rewarding behaviour so that he appears to be assertive as well as capable of human warmth? How does the Women's Liberation movement maintain the traditionally rewarding nature of female interaction with a controlling element which will give women political clout? How do the representatives of the Third World express their point of view forcibly without alienating the sympathies of the developed world? As can be seen from these examples the management of these elements of communication behaviour is by no means as straightforward as it appears.

Language Skills

It is a truism to say that we can understand far more than we can express,but individuals are constantly undervalued because their linguistic performance does not conform to expected norms. The socio-linguistic debate between Basil Bernstein and William Labov illustrates this point. Bernstein's work on class, codes and control introduced the concepts of 'elaborated' codes of language and 'restricted' codes of language to describe the linguistic systems of differing socio-economic groups. His choice of the words 'elaborated' and 'restricted' was unfortunate as there was an implication that the former was superior to the latter. Bernstein himself did not believe this, but many of his disciples accepted the implication, particularly Bereiter and Englemann in the U.S.A. who selected groups of children whom they described as 'linguistically deprived', devising language programmes for them with the aim of giving the children a "head-start" when they entered primary education. Most linguistic researchers are now fully aware of the fallacy of this approach and respond to Labov's critical views of this line of reasoning. Labov showed that the value judgements underlying the interpretation of linguistic data from the "linguistically deprived" children demonstrated a complete denial of the social context in which the language was produced (a hierarchial, pedagogical 'test' situation). He found that the amount and quality of the linguistic data could be radically altered by adapting the social context of the test situation so that it was less stressful and less manipulative.

Labov makes some astringent comments about the verbosity and archaic language structures which constitute the 'elaborated' code – the language of U.N. conferences, of recommendations and resolutions, of legal papers and bureaucratic forms. He suggests that the restricted code may in fact be more in touch with the reality of situations and more appropriate for communicating emotional intensity. Further discussions on the participatory society should take into consideration current socio-linguistic research, particularly to examine the ways in which community groups become alienated by linguistic pressures from politicians, technocrats, police, educators and churchmen.

Another relevant area for study is the language of instruction. In an increasingly complex society where even the instructions on a packet of soap power require superior linguistic understanding, one wonders how the workers in a nuclear power station manage the giving and receiving of information.

Policy makers have not as yet shown much interest in the findings of communication scientists, but if it is true that

educational failure is primarily linguistic failure, as has been shown in a recent investigation of science teaching (*New Scientist* 1978), can we be sure that technological failure is not associated with linguistic failure also and is this not an area worthy of investigation?

Para-Linguistic Skills

It is not *what* you say, but *how* you say it. A somewhat facile comment but one substantiated by research (Argyle 1972). The development of a realistic view of the communication process has been one of the fascinating trends in the linguistic and behavioural sciences in recent years. Chomsky's paper 'Language & Mind' (1957) signalled a revolution in linguistic thinking and his ideas on the universal nature of linguistic development, transformational grammar and the language acquisition process influenced linguistic thinking for more than a decade. It reflected a shift in the balance of the nature/nurture argument and a move away from Skinnerian behaviourism. But Chomsky's emphasis on what was said i.e. syntax created an imbalance in linguistic research which denied the semantic values of the earliest utterances of children, mother-child interaction and the social context in which language is produced. Linguistic research is now deeply immersed in an interactionist phase and there is a coming together of the fields of linguistics and phonetics with the psychological and social sciences with "learning how to mean" as the predominent concept.

In a cross-cultural setting such as a W.C.C. meeting, meaning is often obscured due to confusion surrounding the para-linguistic signals. Women particularly have problems in this context as in some cultures women are still expected to avert their gaze when talking to men and it is considered inappropriate for them to initiate an interaction. Discussions with African students this year on the topic of non-verbal communication have shown that this problem must be made overt at the very beginning of an interaction if it is not to cause constant distraction.

Voice quality and the use of gesture vary widely from culture to culture so that e.g. a Japanese talking with an Arab represents a complete polarisation of non-verbal codes which must affect interaction. The study of speaking distances (proxemics) between cultural groups also demonstrates a wide divergence which is rarely reflected in conference arrangements. Investigations of international meetings may show either an averaging out of para-linguistic codes or a polarisation. Does the habitual attender therefore become out of touch and less able to participate when he returns to his own country? Surely this kind of information is relevant to discussions on the dissemination of conference proceedings.

Interaction Skills

Erving Goffman defines three conditions which produce alienation from interaction - self-consciousness, other consciousness and interaction consciousness. Self-consciousness was demonstrated at the W.C.C. conference by the difficult feelings surrounding the loss of identity in the large group, the lack of validation which many people experience when their usual social context is disrupted and roles become reversed. There was evidence of complex feelings surrounding the theme of *loss* which disturbed the interaction particularly in the striving of the Third World for an independent voice and their repudiation of dependence on a paternalistic developed world. Also, in a W.C.C. setting dominated by Christian ideals, there is always the problem of the placement of anger. How many groups adopted a 'fight' dynamic in section meetings and how many were in 'flight' from the primary task?

'Other consciousness' is shown by the hidden agenda with which participants arrive, whether political, social, cultural or psychological. Thus a paper on bio-ethics is distorted by the 'other-consciousness' of Women's Liberation and this mis-match of goals causes confusion and alienation, diminishing the main theme. Similarly the emotional power of the 'other' theme in the nuclear energy debate, disturbed the balance of rational argument and may have had quite the opposite effect desired by speakers, by setting up unjustified reactions against emotionalism.

Goffman's third example, interaction consciousness, was a submerged issue at this conference. Many people who attended had skills such as the ones described in this paper, which provided a continual personal disturbance and interfered with the successful completion of the primary task. The problem was compounded by the fact that once a communicative system is put into practice and established it is not possible to change the pattern - the meeting must run its course. In the case of this conference the flaw in the communication system was the size of the sections - groups of fifteen work well together, groups of 20-30 members do not, unless alternative strategies are used at the beginning of the group process such as tasks in dyads or triads. Much of the anger and feelings of powerlessness can be avoided and even though it is recognised that groups have to go through the inexorable pattern of forming, storming, norming etc. they do need appropriate measures of time, space and composition to fully demonstrate creativity.

Is it better to be in the grip of self-conciousness and driven by one's emotions than to be so aware of group process that one is distracted by interaction consciousness? At least the former promotes 'fight' which may generate useful ideas in spite of the conflict, whereas the latter produces 'flight' and avoidance of the primary issues with a consequent lack of energy and creativity.

The purpose of this paper has been to briefly outline some of the major themes which were prompted by the observation of communication behaviour at the W.C.C. conference and to recommend strategies which might be adopted at future meetings. It is hoped that the kind of learning which can emerge from such a study of communication behaviour may be seen as relevant to the goal of a more participatory society going some way towards providing a communication model for future conferences in the home countries of participants.

Recommendations

1. That the sub-unit on Church & Society should consider involving communication scientists in future discussions on the participatory society.
2. That, under the general theme "towards a participatory society", a discussion should be held on language and society.
3. That a pilot project should be mounted by the W.C.C. in Geneva to assess the value of a communication task-force whose function it would be to facilitate and report on participation at W.C.C.
4. That one of the tasks of this group should be to devise a method of training for moderators and rapporteurs, either in their own setting or in Geneva, prior to them undertaking this role at major W.C.C. meetings.
5. That the sub-unit on Church & Society should commission a retrospective study on participation at the 1979 conference from a recognised institute of human relations.

The WCC Programme on Energy for my Neighbour– the Search for a New Look

by Janos Pasztor

Janos Pasztor, recently named consultant for energy questions in the sub-unit on Church and Society in the WCC, was born in 1955, in Hungary, where his father is a minister of the Reformed Church. As a result of his father's appointment as a professor in a theological college in Kenya, he spent four years in that country. After graduating from secondary school in Nairobi, he was a year in Switzerland and the FRG learning German. In 1974 he moved to the USA to begin studies in the Department of Nuclear Engineering at MIT. Originally he intended to become a nuclear reactor engineer, but later decided to concentrate on nuclear medicine. He spent his last two years at MIT specializing in the field of energy as an interdisciplinary subject. In his final year, he was a teaching assistant to Dr. David Rose, a Professor at MIT, who is also a member of the Working Committee on Church and Society. He graduated from MIT in June 1979 with a Master's degree in engineering. It was through Prof. Rose that he became involved in the WCC's work in the field of technology and society. He served as staff to Section VI, Energy for the Future, of the MIT Conference. After a few months in his home country, Hungary, he joined the staff of the WCC in Geneva in December 1979.

*
* *

Since 1973 the WCC has been giving attention to the issues of energy. Two concerns have been predominant: the problem of nuclear power and the sharing of energy resources. The latter led to the launching of the Energy for my Neighbour Programme. Consultations on nuclear power discussed such issues as safety considerations, risk analysis and proliferation from an ethical perspective. The main conclusion was that the nuclear issue cannot be decided in isolation. It has to be looked at in the context of other options, and especially conservation. It was found that the problem is not only technical or economical, but also a debate about social questions (i.e. more vs. less or centralized vs. decentralized). In the light of these considerations, it was found that nuclear power is a conditional good. It could be neither categorically rejected nor accepted. The Boston Conference carried the discussion in the churches to a new stage by proposing a five-year moratorium on the further development of nuclear energy.

The Energy for my Neighbour Programme, as its title suggests, was to help the rich churches think about others in the context of energy. It was envisioned that individuals, as well as communities in the rich nations, would conserve energy, and the savings would be collected and used by churches to help communities in need in the poorer developing countries. It is thus a programme of conscientization for energy conservation, as well as for helping others. In 1978 there were preliminary surveys in Sri Lanka, Ghana, Guinea-Bissau and Brazil under the auspices of the Programme, to discover possibilities for such transfers of energy technology. It is hoped that such work will continue.

There is however more to the energy problem than the issues mentioned above. The report of the Section on Energy of the Boston Conference shows that much more is required from both individuals and groups. People's participation in decision-making was stressed. People often forget that by not making a decision we are in fact making one by allowing somebody else to make it. Whether we like it or not we are involved in these decisions—it is better for us to get involved to our advantage.

Individuals may not be able to achieve a great deal by themselves; communities and church groups for example, can do much more (e.g. the "Aktion E" of the *Brot für die*

Welt). It is not sufficient for the rich to send money for fuel or energy systems to the poor. What is really needed is for the poor to find ways of supplying themselves with energy. For this, financial help and transfer of know-how may be necessary, but it is important that those who are in need should decide what they need, what they can achieve and consequently what they want. It is the recipient communities who will experience the effects of the technology used (and not the engineers who implement the technology); it is the communities who ought to discuss the various problems associated with it.

The problem is that as energy technology gets more and more complicated it becomes increasingly difficult for "lay" persons to participate in decision-making. They cannot be expected to know what kind of fuel rods are required for an LMFBR or how an electrostatic scrubber works. It is for this reason that the opinions of scientists and engineers (often called experts) are needed. To quote the report of the Boston Conference: "...complex capital intensive technologies, such as nuclear power, bring the prospect of an ever more centralized society which makes participation difficult and could adversely affect human liberties". These are issues which present us with some very important questions, and for which we have still incomplete answers. Despite the difficulties we should be involved in public discussion of energy issues.

It is also important to know what is happening outside of our own communities, our countries and continents. It is quite possible that our way of using energy could adversely affect somebody else (for example the exhaust from my car causing a headache to my neighbour). This happens at the international level (e.g. where one part of the country is surface-mined and polluted so that the other part can have "clean" electricity) or at the international level (where acid rain kills forests in Sweden and Norway as a result of bad control of sulphur oxides at British coal plants; or the over-consumption of energy in rich countries deprives others of fuels). In other words, acting conscientiously about energy issues does not only mean to be a pro- or antinuclear activist, or to give money to the poor to buy fuel. It means understanding the global energy situation to the extent that local action about energy will not be detrimental to the larger system (be that another individual, another nation or another continent).

The Boston Conference emphasized that a substantial part of the global population cannot even supply itself with enough energy for the bare minimum for survival. The little fuel which is being used consists almost entirely of wood, twigs, leaves and animal dung.

These are all renewable energy sources but their rate of use is much greater than their rate of replenishment. As a result, there are regions in the world where trees are slowly disappearing. This is not only dangerous, ecologically speaking, but if the wood runs out these people will have no usable (i.e. appropriate) fuel left at their disposal. At the same time, there is a much smaller group of people for whom the energy crisis presents a rather different problem. They use 10 to 20 times as much energy per person as those in the poorer group. For them the problem is that now they may have to stand in line for 30-40 minutes to get gasoline for their overpowered and inefficient automobiles. (In India a rural family typically spends 4-14 hours a day collecting fuel-wood, depending on the accessability of supplies!)

Problems like this raise some very important ethical questions, and the Christian churches have to be involved in finding solutions. The WCC believes that to "love your neighbour as yourself" in the context of energy means to be concerned about your neighbour's supply of energy as well as your own. Why is that not happening? The technical answers are complicated and there are many dimensions to the energy problem. The energy report of the Boston Conference challenges the churches to further discussion of these important dimensions. One thing is clear, the more centralized an energy technology becomes, the more dimensions there will be and the more difficult will be the participation in meaningful discussion.

In Boston, engineers, scientists and theologians did not come out with a final solution, or solutions. What they did was to point to areas of concern, some of which are mentioned above. These will have to be discussed and acted upon at local community, national and regional levels. The purpose of the Energy for my Neighbour Programme is to encourage and support these discussions and actions.

Two the Conference's leading student participants: (Left) Peter Scherhans, theology student from the University of Heidelberg and organizer of the science students conference, and (right) Janos Pasztor, (Hungary) graduate of MIT who has since become consultant to the WCC on the Energy for My Neighbour project.

Der Überlick, *(The Larger View) is a quarterly magazine for Ecumenical Encounter and International Cooperation, published by the Working Committee of the Church Development Service in the Federal Republic of Germany. The entire issue of Sept. 1979, was devoted to the MIT conference, and provided a valuable resource for readers of German.*

The Accredited Visitors' Programme at the Conference

by Robert W. Thornburg

I. The Setting of the Conference – an Incredible Attraction

The whole Conference on Faith, Science and the Future had an incredible attraction. The subject itself has a special lure for modern church persons. For years, the Church has watched with deep concern the ascendancy of science and technology, and the assumption of the growing irrelevance of religion. A meeting that would link our theological and technological concerns aroused immediate and widespread enthusiasm.

Interest in the people participating was nearly as great as in the subject. The encounter between first-rank theologians and ethicists, persons from developing countries and from many different churches, including the Russian Orthodox Church, seemed to offer an unparalleled opportunity for exchange.

Added to this was the mystique that gathers around the Boston-Cambridge area in general, and MIT in particular, where leaders and faculty are not bashful about their very considerable accomplishments.

II. Selection of Accredited Visitors

The first announcement by the World Council of an Accredited Visitors' Pogramme was a mastery of understatement. On March 28, it issued a statement saying, "In view of the great interest in the World Conference on Faith, Science and the Future, and the number of persons, especially from North America, who would like to follow the proceedings a limited number of Accredited Visitors will be invited to attend the plenary sessions of the Conference".

When the Conference began, 162 fully participating Accrdited Visitors were registered. Of these, just under a quarter were women. Only 10% were from minority groups (Asian, Black, and Hispanic). Fourteen denominations in the United States and Canada sent representatives, as well as ecumenical agencies such as the National Council of Churches (USA), the National Association of Ecumenical Staffs, Church Women United, the National Council of Catholic Women, the National Council of Catholic Bishops. Of the total number, less than 10% were from countries outside North America.

The cost of attending the Conference and its location dictated that the accredited visitors, unlike the official participants, would be largely North American. But as the time of the Conference approached, it became clear that many of those nominated for the A.V. programme could not pay their own expenses and give nearly two full weeks of time for such a Conference. Therefore, although the nominees were equally balanced between church vocations, and vocations in science and technology, the number of clergy who actually attended far outdistanced the number of lay persons, particularly scientists. There were in the end 28 from the Lutheran Church in America, and 18 from the American Lutheran Church, while the Episcopal Church, the United Methodists, and the United Presbyterians had between 10 and 12 each. Even though the goal of full participation of all segments of society was not met, there was, in fact, a very wide diversity of opinions, points of view, and backgrounds represented.

Among the church leaders present were: seminary professors, college and university professors and administrators, denominational and ecumenical officers and executives, campus ministers, and parish pastors. Several denominations would organize meetings of their participants in an effort to make a wider impact on their denominations in terms of continuing discussion of the issues.

III. The Programme for Accredited Visitors

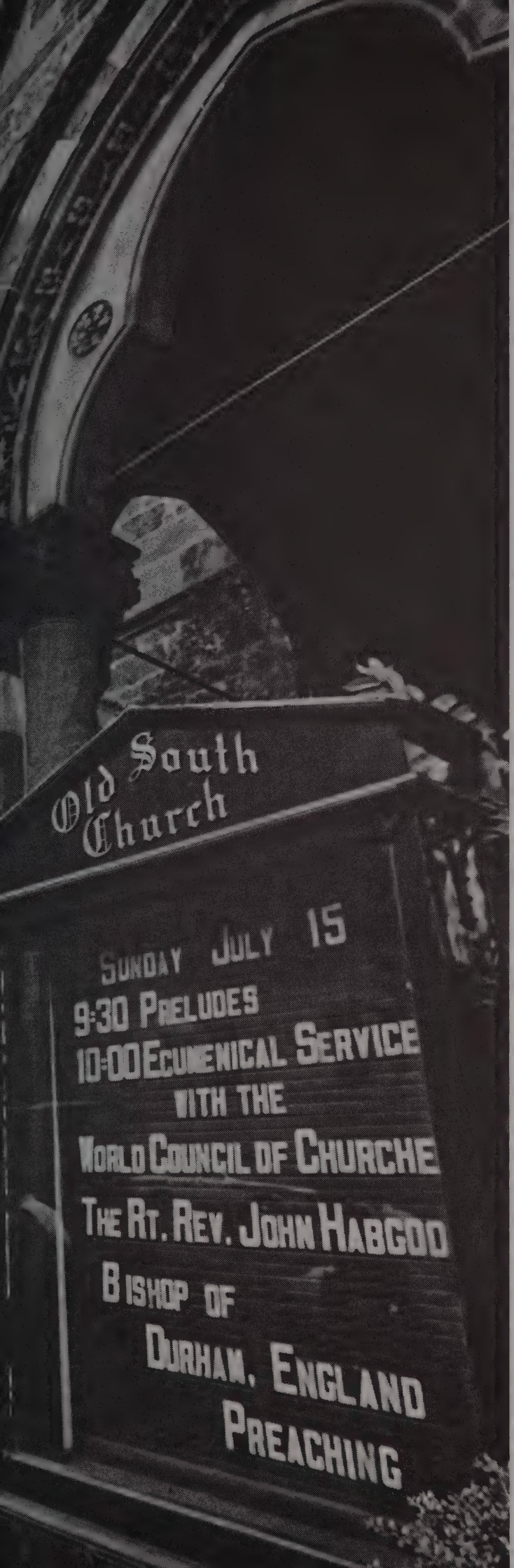
Organizing a programme for this group was a fascinating challenge. Among the planners there was a wide variety of interests and concerns. Some wished to allow for the greatest possible flexibility; others maintained that a more structured programme and leadership would be required. The realities of the situation to some extent dictated the outcome. The sheer bulk of printed material received before the Conference and the number and scope of the of the topics considered required that the programme facilitate understanding and dialogue.

As developed, the programme had three purposes. First, instructive: "to help all the participants see the issues and implications of the plenary sessions and the wider issues of the Conference". Second, integrative: "to assist participants in seeing several issues in relation to each other - in contast to separating and isolating issues and arriving at simplistic solutions". Third, action and reflection: "to assess how the Conference might be best followed in discussions and actions in parishes, judicatories and denominations, as well as in the life-styles of individual Christians".

To carry out these purposes, there were three kinds of activities:

1. The 21 major plenary sessions. Plenary presentations were available in printed form for careful study after the sessions. (The major work of the Conference was in Section meetings closed to persons other than the official participants.)

2. "Briefing sessions" following lunch. At these various leaders and participants in the Conference were given an opportunity for dialogue with each other and with members of the Accredited Visitors' Programme. On the first day, Philip Potter, Paul Abrecht and Claire Randall engaged in a discussion on the nature and purposes of the Conference and some of their expectations. Robert Hanbury Brown and Charles Birch, both outstanding philosophers of science from Australia, reflected on their views of the philosophy of science. Kerstin Anér, a Minister in the Government of Sweden; John Francis, a



civil servant from Scotland; and Jun Ui, a consultant from Japan, presented differing points of view on the role of government and responded to questions by the participants. In another session Vitaly Borovoy and Alexy Buevsky spoke of the need for a joint statement of concern from the United States and Russian Christians on issues of science, technology and armament. They were ably assisted by Alan Geyer of the United States. At many of these briefing sessions, differences of opinion were presented and participants were able to explore the thoughts and insights of participants in a way not possible elsewhere in the Conference.

3. Five working sections which, while not exactly parallel to the Conference sections, followed closely their themes. They included the following topics: 1. Economic Justice: Food, Population and Resources, 2. The Energy Debate, Nuclear and Alternative Sources, Values and Risks, 3. Values and Limits of Science, 4. Changing Assumptions in Christian Social Ethics, 5. Challenges to the Dominance of Technologically Advanced Society. Participants chose from among these five topics, and the Steering Committee selected persons to serve as facilitators for the discussion. There was no attempt to impose agendas or substantive perspectives on the sections apart from the titles.

These working sections of the accredited visitors were a humbling experience. Many had come to the Conference with clearly drawn opinions and a concern about the issues confronting both science and faith. It was clear that as the debates progressed, the answers became less positive, conclusive and simplistic.

It had been made clear that the Conference was not to receive reports, recommendations or petitions from the accredited visitors. In the beginning this created some irritation. But as the Conference moved ahead the accredited visitors became more tentative about what they might be able to say to the plenary sessions. The written conclusions, presented by the working groups at the closing plenary for the accredited visitors, were not intended for wide dissemination or for transmittal to the Conference.

The group on Economic Justice, Food, Population and Resources, had two very simple recommendations: First, that future conferences allow more time for dialogue. The deluge of facts and opinions did not allow for much exchange or change of ideas or attitudes. Second, that a newsletter be circulated to keep all participants informed of the follow-up to the Conference.

The section on Energy discovered how passionate opinions are on that subject. It concluded with two questions addressed to the accredited visitors and the constituents whom they serve. One: "Is it fair for the current distribution of energy use to be continued?" Two: "Recognizing that there is an urgent need to address the energy crisis, is it ethical and reasonable to exclude the consideration of any energy option?"

The section on Values and Limits of Science posed a very simple statement: "We propose that the church increase its activities in attempting to understand more deeply the nature, methodology and process of science - placing particular emphasis on entering into dialogue with the scientific community regarding the ethical dimensions of scientific research for the purpose of: At a *minimum* better educating the public about potential long-term consequences of scientific and technological research and changes; and at a *maximum* actively engaging in the molding of public policy related to the functioning and development of science and technology."

The working section on changing Assumptions in Christian Social Ethics drew the largest number of

accredited visitors. A number of them were faculty from schools of theology. They did not issue a formal statement concerning their deliberations. Clearly they were more concerned to discuss the issues that confront teachers of social ethics and its application in our society than in making statements.

The section on Challenges to the Dominance of Technologically Advanced Societies forwarded the following statement to the delegates in Sections IX and X of the Conference upon the request of these official participants.

> It is necessary for constituent bodies of the World Council of Churches to affirm the goal of a 'just, participatory and sustainable society'. We concur in the need for a new Christian social ethics and new social policies for the Church.
>
> We must redirect the concept of economic growth from ever increasing quantitative production levels to an emphasis on human development. The arms race is the major impediment to this change of direction.
>
> We must establish clear political control of the direction of economic development as opposed to technological drift. We agree with Dr Potter that 'participation in decision-making is an essential dimension in the cause of justice for all, for the fullness of life for all... Participation means each person taking initiative in formulating or changing policy.
>
> We urge constituent bodies of the World Council of Churches to inform their respective memberships of the goals of a just, participatory and sustainable society, and to enlist them in achieving these critically necessary goals.
>
> It will require active engagement at local and regional levels to involve the whole community in support of policies and pogrammes consistent with the goals of political, economic, social and religious life.
>
> In response to this call we feel the need to return to our spiritual basis and spiritual resources in order that 'all things be made new'.

One over-riding impression came out of all the section meetings: in the face of the problems, questions and implications of these discussions, all arrogance turns to humility; more questions are raised than answers given. It was eqally clear that the greatest values came in the dialogue and in expressions of concern among people who had deep convictions, but in many cases not sufficient sources for the exchange of ideas or information. This was particularly true in the dialogue with persons from other countries and other cultures. Participants in all sections became sensitive to the temptation to sectionalism and sectarianism of so much of North American Christianity.

V. Leadership of the Accredited Visitors' Programme

Leadership in the Accredited Visitors' Programme came from within the programme itself. Since no budget was provided, all staff had to be volunteer or coopted. The early planning was headed largely by Chris Cowap, Executive of the National Council of Churches; Ruth Wick, Lutheran Church in America; Roger Shinn, Professor at Union Theological Seminay, and Gordon Schultz of the Church and Society Conference. Representing Boston University as volunteers were Professors Paul Deats and Norman Thomas, both of the School of Theology Faculty. Dean Robert Watts Thornburg of the Marsh Chapel of Boston University chaired and coordinated the programme.

Graduate students in the School of Theology did a great part of the work. Jay Turner served as Registrar and Coordinator of Housing and Physical Arrangement. Sue Grove was Program Coordinator. They were assisted by Rhonda Sternberg and Mark Gray.

Other leadership came from persons coopted from among the accredited visitors themselves.

VI. What Evaluations and Conclusions can be drawn from the Accredited Visitors' Programme?

First, a confession. Church persons in general, and church leaders and theologians in particular, are not prepared for consistent and faithful theologizing on the difficult questions related to science and the future, even though we have often decried the absence of faith in guiding the future. Christians are called to speak about the quality of life and the meaning of full humanity, and are looked upon as generalists in a society of increasing specialization. They are in a position that can be crucial in the changing society, which needs to ensure that human values are enhanced by technological advance rather than debased by it.

Second, an observation: the issues of the future of our society are so large and complex that church persons are easily intimidated and driven to acquiescence or despair. While it is obvious that no one of us is called to be an expert in every field, or even to be technically expert in any one of the scientific fields, it is also clear that no one can live responsibly in this society without having moral and faith convictions informing their choices in such areas as energy usage, and biological engineering, as well as attempting to influence public policy in these important issues.

Third, it seems important to build a network of concern and information in order to share strategies for achieving a just and sustainable society. There was a strong undercurrent suggesting that the church must again assume a "remnant" status which would seek to model alternate styles of life in a world which seems unconcerned about the headlong rush towards disaster. While all the statistical presentations and factual discoveries indicate that we are moving toward more difficult times, there seemed to be prophetic voices to interpret what that means for the church and for society.

Finally, there is an obvious need to strengthen communication between diverse segments of our world. It is becoming increasingly clear that there must be a massive and radical shift in power and decision-making from the privileged few to a much larger base. People from the United States often find it easier to talk about such a shift in power than to participate in it. It is not easy to give up position, possessions and power. Indeed it is often contended that these must be taken rather than given.

The Accredited Visitors' Programme of the World Conference offered a number of representative church people an opportunity to read and hear about important issues in the future of science and faith. Already results are being seen in the growth of various denominational and regional groups who are moving from the small number who were in Boston to a much greater number throughout the country. The final verdict on the success of such an enterprise cannot be rendered until it is seen whether the understanding and conscience of the Church have been significantly raised, and whether the quality of its decision-making reflects faithfulness to the demands of God in this time.

Science and Technology for a New International Economic Order

The U.N. Tries a New Approach after the Confrontation at the Vienna Conference, August, 1979

The WCC was represented at the U.N. Conference on Science and Technology for Development, Vienna, August 20-31, 1979, by Metropolitan Paulos Gregorios and Paul Abrecht. The following report includes an evaluation of the Conference by Metropolitan Gregorios, his presentation to the meeting, and a summary of the subsequent actions taken by the United Nations General Assembly at its session in December, 1979.

1. Confrontation at the U.N. Conference on Science and Technology for Development

by Metropolitan Paulos Gregorios

The U.N. Conference on Science and Technology for Development (UNCSTD) was the most recent of the big U.N. General Conferences which have focussed on Environment, Population, Women, Habitat. There were some 6.000 of us around—in various capacities, representing national delegations, U.N. related bodies, intergovernmental agencies, non-governmental organizations, etc. for this meeting (August 20-31, 1979) at the capacious Stadthalle in Vienna.

The pattern was familiar to those who have been to U.N. Conferences – some 200 formal speeches in plenary while the real work goes on in caucuses, corridors and confrontations in committees.

The key issue was obvious from the beginning. The UNESCO Office of Statistics (Science and Technology Division) had published interesting data on the global distribution of research and development in science and technology. Some highlights:

1. Total number of Scientists and Engineers engaged in Research and Development (based on 1974 figures, in 104 countries).

	World Total	Developed Countries	Developing Countries
a) No. of Scientists & Engineers	2,978 million	2,798 million	180 million
Percentage	100%	93.9%	6.1%
b) Expenditure	$ 101,785 million	$ 99,158 million	$ 2,627 million
Percentage	100%	97.4%	2.6%
c) Scientists & Engineers – per million population	1019	2579	98

To put it another way 94% of the world's scientists and engineers engaged in research and development (in 1974) work for the 37% of world population which constitutes the industrialized world, while the remaining 63% of the population in the developing countries have only 6% of the total number of research scientists.

Power in modern society comes from science and technology. And its distribution is now so lop-sided, that justice cannot be established on our globe without changing the picture of scientific-technological power. But how to do it? By starting a new U.N. Secretariat for that? Thank God UNCSTD did not choose that path. Instead they agreed to create a special fund for supporting R & D projects in developing countries. But confrontation soon ensued on questions like: Who controls the fund? To whom does it report? How much money to put into it? Who pays? Should it be voluntary or taxation? How would it be distributed? The rich nations had come with an agreement among themselves to hold to a fund of around $200 million, while the developing countries wanted a $2,000 million fund. The present gap between the 37% rich and the 63% poor is (according to a 1974 estimate) $96,531 million a year in R & D. If $200 million per year are added to the two-third world budget, the gap would still be $96,331 million dollars. And even the $200 million would not be provided in one year, but over a period of three years!

So if the 63% of the two third world finally agreed to a $250 million figure, it shows how much this big conference, which itself cost some $50 million, achieved in two weeks of meeting.

Other important facts that came through:

1. Distribution of personnel in R & D and expenses for R & D:

	Personnel	Expenses
North America	19.1%	35.3 %
South America	1.3%	0.8 %
Africa	0.9%	0.5 %
E. Europe (excluding USSR)	10.9%	6.89%
W. Europe	12.9%	23.79%
USSR	39.3%	21.4 %
Oceania	1 %	1.2 %

Clearly the market-economy-developed countries spend more money (for equipment and salaries) per research scientist than the socialist countries.

2. Half of Research and Development Scientists in the world are employed by Transnational Corporations.

3. About half a million research scientists and technologists are employed for military purposes – science and technology for mutual destruction.

4. Unless the developing countries get sufficient resources and personnel for setting up their own science and technology research and development it is not possible to abolish poverty, injustice, malnutrition, illiteracy, ill-health and so on.

5. Scientific-technological information is, in its most crucial aspects, still private property. In fact in order to make money by exploiting others, scientific-technological information is more important than capital. And that information is now in the hands of a minority, despite the fact that some 3 million scientific-technological papers are published each year.

6. It is not simply that some information has to be purchased at high prices; it is often the technology minus some crucial bits of information that can be purchased. So that little bits of technology can continue to be used for exploitation for a long time.

7. Developing countries have not sufficiently built up the capacity even to absorb and utilize the information and skills available in the published literature.

8. It is good to avoid confrontation and to seek the way of co-operation as the U.S. delegation said in the Conference. But by co-operation some people mean perpetual dependence on the strong by the weak. Even confrontation of the strong by the weak did not produce much effect at UNCSTD.

2. *Statement by Representatives of the WCC to the United Nations Conference on Science and Technology for Development, Vienna, August 1979*

The World Council of Churches, an international fellowship of some 300 Christian churches from about 100 countries in all six continents, with a constituency of about 360 million Christians, is deeply grateful for this privilege of addressing the U.N. Conference on Science and Technology for Development.

Only last month, from July 12 to 24 we organized a rather large world conference on Faith, Science and the Future at the Massachusetts Institute of Technology in Cambridge, Mass., USA. About 1000 people, a very large number of them professional scientists from various disciplines, attended the conference in different capacities. Let us share with you just five of the many insights that we have personally gathered from that conference.

1. First, we realized that an NGO like the World Council of Churches had still a special role to fulfil, supplementing the work of the U.N. and other governmental bodies. At our forum people from all over the world, with different religious, cultural or ideological backgrounds and convictions, believers and unbelievers, could speak to each other openly and frankly on issues facing humanity. But they were able to transcend narrow national or regional loyalties, to see problems as problems of humanity as a whole, and to seek solutions which would serve the interests of the whole of humanity. This role, we are convinced, we should continue to play, in order to supplement the work of governmental agencies.

2. Second, we learned that the Western Christian or the Western secular perspective, which underlies much of Western civilization, culture, science and technology, represents but a narrow segment of the heritage of humanity. By listening to speakers from a Buddhist or an Islamic background, we saw how for example the Far Eastern perspective of Taoism, Buddhism and Hinduism is sometimes able better to accommodate and enrich the world view of science and technology. We saw that all of us have to learn from each other, and that by refusing to take seriously other people's cultural, religious and ideological heritage, we render ourselves so much the poorer. Science could develop along different lines when fully roted in other cultures.

3. This group of scientists was intensely concerned about what science and technology are doing for humanity. They "acknowledged with penitence the part played by science in the development of weapons of mass destruction and the failure of the churches to oppose it". Recognizing the fact that close to half a million scientists are to-day in the service of military establishments, they were "profoundly disturbed by the willingness of scientists, engineers and corporations, with the backing of governments, to pursue profit and prestige in weapons development at the risk of an unparalled destruction of human life". Unplanned by the organizers of the Conference, a resolution rose spontaneously from the floor of the meeting, demanding total nuclear disarmament and destruction of weapon stockpiles. The Conference unanimously demanded that science and technology serve peace rather than war, justice rather than profit, the needs of the poor rather than the greed of the affluent. It was heartening to find the scientific community no longer blaming just the politicians for the misuse of science and technology, but boldly accepting part of the responsibility for that misuse and for changing the structures of injustice. They recognized that the ideal of the scientist as a solitary hermit in humble and ascetic pursuit of knowledge for its own sake in pure science was a myth. 95% of science and technology is now in the service of military, commercial-industrial, agricultural, medical or other interested pursuits. The scientific community is now waking up to its social responsibility, and with its great authority in our society can contribute much to evolve structures that would make science and technology serve the true interests of humanity. They are beginning to assert their independence and refusing to serve the causes of war and profit.

4. A fourth major insight was the way the socio-economic, cultural and political milieux in which science and technology develop, profoundly influence the course and orientation of scientific technological development. You cannot start reforming the course and orientation without in the same process radically altering the power-structures within which that development takes place. Science-technology reinforces the pattern of injustice in any given national or global society. The powerful are able to become comparatively more powerful; tremendous advances in technology make it possible for some already powerful nations and groups more powerfully to dominate others and to exploit them. Today science-technology is largely a captive of the corporations and the military establishments which reinforce each other in the oppression and exploitation of humanity. It is in this sense that we commend this U.N. Conference for choosing to focus on the structures of power rather than on the nature of science and technology. But clearly this Conference can make only a very small dent on those structures of power. Even a large sum of money set aside for a global science and technology fund, can make only a small beginning. Without a concerted effort by all human beings and all institutions, governmental or non-governmental, it is difficult to achieve the transition to global and national power structures which serve the needs of people and promote dignity, justice and peace for all humanity. The liberation of science-technology from control by the few, and its redeployment in the interests of humanity as a whole and especially of the poor, calls for a gigantic political economic struggle. This Conference brings new evidence to show how difficult it is to achieve this liberation without confrontation, through co-operation based on a goodwill that seems often to be so sadly lacking.

5. The liberation of science and technology is indeed a political economic task; but that task is inseparable from considerations about the nature itself of our present science and technology. Our WCC Conference did not shy away from analyzing that nature. Several of our women participants pointed out the fact that it was a

male-dominated western society which created the present kind of science and technology. And domination is the key to understanding our kind of science-technology – domination of nature by man, of matter by reason, and of the majority of human beings by a minority. It becomes therefore imperative not only to analyze the socio-economic and political structures, but also the thought structures of the age in which they are rooted. These thought structures involve such questions as: what does it mean to be a human community on our globe today? What criteria or norms should guide the development of human societies, the relationship of human beings to each other, and to non-human reality? What idols does humanity worship? What demons stand in the way of a humanity that seeks to grow into fuller dignity and more mature freedom? How do we name and exorcise these demons?

Those of you who represent governments may consider the language of these questions archaic and their substance unfamiliar. But governments too have to be concerned about questions of meaning and purpose. These questions cannot be answered by science-technology, nor are the answers to be found in textbooks of political science or theology. Structures of meaning are human creations, but each generation, each age, each society, consciously or unconsciously chooses its own. And the political economic structures are based on the structures of meaning chosen by the dominant group. These need analysis, and none of us, whether representatives of governments or not, can escape that task. It is not a question of choosing certain ethical values and then proceeding to teach them to humanity. The task is rather to become aware of the structures of meaning that underlie our present political economic and socio-cultural structures and to devise new forms of these latter rooted in more humane, more dignified, more compassionate, more edifying and more liberating structures of meaning.

These structures of meaning will not be produced by science-technology. Nor will they be handed to us ready made by the religious establishments of the world. We have to struggle together for them, people of all religions and faiths and ideologies; struggle not simply in conferences, in academic studies, in libraries or laboratories, but in the very process of socially organized labour and in experience based visionary reflection. The corporate wisdom of humanity, male and female, believer and unbeliever, expert and non-expert, young and old, east and west, must create new structures of meaning in the process of struggling for new politico-economic and new socio-cultural structures. May this Conference lead to our common tackling of that task which is decisive for the future development of science and technology and thus for the future of humanity.

3. Action of the U.N. General Assembly, December, 1979. "To Strengthen the Scientific and Technological Capacity of Developing Countries".

The general opinion about the 1979 Vienna Conference on Science and Technology was negative and pessimistic. The Conference had failed to reach any creative decisions and it had also failed to arouse public opinion to the need for a new approach to the role of science and technology in world-wide social and economic development. Indeed since the conference failed to take any significant action it received scant attention in the world press and other world communications media.

All the more surprising therefore that the U.N. General Assembly through its Second Committee has since acted decisively in creating new processes and mechanisms to strengthen the scientific and technological capacity of the developing countries. It is evident that the General Assembly was provoked by the failure of the Vienna Conference to take firm action. In its Resolution establishing the new mechanism the General Assembly expressed "regret that no decisions were taken (at Vienna) on certain important questions"! It is a sign of life that the General Assembly had the courage to acknowledge that the Vienna Conference had produced disappointing results and determined to do some house cleaning. It created a new structure designed specifically to stimulate scientific and technological development in the developing countries.

The new structure has three parts:

1. **A New Intergovernmental Committee for Science and Technology for Development**

This Committee replaces the Economic and Social Council's Committee on Science and Technology and becomes a standing Committee for the General Assembly itself. It will assist the General Assembly in the following functions:

"a) Formulating policy guidelines for the harmonization of policies of the organs, organizations and bodies of the United Nations system in regard to scientific and technological activities, on the basis of the Vienna Programme of Action on Science and Technology and with a view to contributing to the establishment of a new international economic order;

b) promoting the improvement of linkages between the organs, organizations and bodies of the United Nations system, with a view to ensuring the coordinated implementation of the Vienna Programme of Action;

c) identifying priorities for activities within the Vienna Programme of Action with a view to facilitating operational planning at the national, subregional, regional, inter-regional and international levels;

d) preparing an operational plan for carrying out the Vienna Programme of Action;

e) monitoring the activities and programmes related to science and technology within the organs, organizations and bodies of the United Nations systems;

f) promoting the optimum mobilization of resources in order to enable the organs, organizations and bodies of the United Nations system to carry out the activities of the Vienna Programme of Action;

g) initiating arrangements for the early identification and assessment of new scientific and technological developments which may adversely affect the development process as well as those that may have specific and potential importance for that process and for strengthening the scientific and technological capacity of the developing countries;

h) providing directives and policy-making guidance to the United Nations Financing System for Science and Technology for Development."

Thus the first result of the Assembly's action is to lift the issues of science and technology to a new level of priority in the work of the U.N. General Assembly.

2. A New Secretariat for Science and Technology for Development

Perhaps the most radical step taken by the U.N. General Assembly was to request the U.N. Secretary General "to establish as a new, organizationally distinct entity, a Centre for Science and Technology for Development within the U.N. Secretariat". This Centre located in New York and headed by an Assistant Secretary General will be "responsible to and report directly to the Director-General for Development and International Economic Cooperation", who "shall be responsible for exercising over-all coordination at the secretariat level within the U.N. system in science and technology". This is a victory for the so-called Group of 77 Nations (actually 127 developing countries) and for Mr Kenneth Dadzie, the present Director-General for Development and International Economic Cooperation who has the confidence of Third World countries.

The new Centre "shall assist the Director-General in fulfilling the responsibilities assigned to him in the Vienna Programme of Action, particularly in providing the necessary substantive support to the Inter-Governmental Committee for Science and Technology for Development and in coordinating activities at the secretariat level related to science and technology within the United Nations system".

The Assembly Resolution "abolishes the U.N. Office for Science and Technology redeploying immediately most of its posts and budgetary resources to the Centre". The Director-General, aided by the Centre, will be responsible for policy-making and coordination of U.N. operations for science and technology. The specialized agencies like UNESCO, FAO, WHO, etc. are supposed to take their direction in relation to technological development from this new structure. It is likely that the agencies do not welcome this new structure but the Assembly was no doubt aware that the rivalry and competition between the specialized agencies was responsible for much of the inability of the Vienna Conference to be more creative. In this regard the Assembly Resolution requests that:

> "the Secretary-General prepare a basic study of the activities, mandates and working methods of all the various organs, organizations and bodies of the United Nations system in the field of science and technology for development and examine the possibilities of improving the efficiency of the system in that field. A preliminary report on this study should be submitted to the Inter-Governmental Committee at its first substantive session, and a final study, including proposals, should be submitted to the Inter-Governmental Committee at its 1981 session..."

3. New U.N. System for Financing Science and Technology for Development

The Assembly Resolution emphasizes the need for substantial long-term financing of the U.N. Programme on Science and Technology commensurate with the need for overcoming "the asymmetry of the technological capacity between developed and developing countries". It outlines the steps to be taken by the Inter-Governmental Committee for starting such long-term arrangements in January 1982. The Resolution declares that pending the establishment of the long-term arrangements "an interim fund will be created and will be sustained by voluntary contributions". The target for the Fund "for the two-year period 1980-1981, should be no less that $250 million". The Resolution concludes by urging all Member States, "and in particular the developed countries, to contribute generously so that the agreed upon target of $250 million for the Interim Fund may be met".

This radical restructuring of the U.N. work in the area of science and technology suggests the determination of the U.N. Assembly to overcome the imbalances and the injustices in the distribution of science and technology between the rich and poor nations.

It will appear to many critics that one of the important weaknesses of the Vienna Conference on Science and Technology has not been dealt with in the new structure, the inability to cope with the conceptual issues underlying the world-wide debate about science and technology policy. There is no doubt an inbuilt tendency in the U.N. discussion of science and technology to shun the philosophical and cultural issues. Clearly the U.N. is equipped to work only on those issues which are fundamentally political and administrative. How can this limitation be overcome? It may be one of the contributions of non-governmental organizations, like the churches, to challenge the U.N. system's purely political and technical approach to science and technology for development.

P.A.

Church and Science

Excerpts from an Address by Pope John Paul II to the Pontifical Academy of Sciences, Rome, November 10, 1979

To Know Truth

...The search for truth is the task of basic science. The researcher who moves on this first versant of science, feels all the fascination of St. Augustine's words: "Intellectum valde ama" (*Epist.* 120, 3, 13; PL 33, 459), "he loves intelligence" and the function that is characteristic of it. Pure science is a good, which every people must be able to cultivate in full freedom from all forms of international slavery or intellectual colonialism.

Basic research must be free with regard to the political and economic authorities, which must cooperate in its development, without hampering it in its creavity or harnessing it to serve their own purposes. Like any other truth, scientific truth is, in fact, answerable only to itself and to the supreme Truth, God, the creator of man and of all things.

United with Conscience

...On its second versant, science turns to practical applications, which find their full development in the various technologies. In the phase of its concrete achievements, science is necessary to mankind to satisfy the rightful requirements of life, and to overcome the different ills that threaten it. There is no doubt that applied science has rendered and will continue to render immense services to man, provided it is inspired by love, regulated by wisdom, and accompanied by the courage that defends it against the undue interference of all tyrannical powers. Applied science must be united with conscience, so that, in the trinomial, science-technology-conscience, it is the cause of man's real good that is served.

Church Aids Science

...Unfortunately, as I had occasion to say in my encyclical *Redemptor Hominis,* "The man of today seems ever to be under threat from what he produces... This seems to make up the main chapter of the drama of present-day human existence" (n. 15). Man must emerge victorious from this drama which threatens to degenerate into a tragedy, and he must find again his true kingship over the world and his full dominion over the things he produces. At the present time, as I wrote in the same encyclical, "The essential meaning of this 'kingship' and 'dominion' of man over the visible world, which the Creator himself gave man for his task, consists in the priority of ethics over technology, in the primacy of the person over things, and in the superiority of spirit over matter" (n. 16).

This threefold superiority is maintained to the extent to which the sense of the transdescendence of man over the world and of God over man, is preserved. Exercising her mission of guardian and advocate of both transcendences, the Church considers she is helping science to keep its ideal purity on the versant of basic research and to carry out its service of man on the versant of its practical applications.

Religion and Science

...The collaboration between religion and modern science is to the advantage of both, without violating their respective autonomy in any way. Just as religion demands religious freedom, so science rightly claims freedom of research. The Second Vatican Council solemnly recognizes "the legitimate autonomy of culture and especially of the sciences" (*Gaudium et Spes, n. 59*). On the occasion of this solemn commemoration of Einstein, I would like to confirm again the declarations of the Council on the autonomy of science in its function of research on the truth inscribed in creation by the finger of God. The Church, filled with admiration for the genius of the great scientist in whom the imprint of the creative Spirit is revealed, without intervening in any way with a judgment which it does not fall upon her to pass on the doctrine concerning the great systems of the universe, proposes the latter, however, to the reflection of theologians to discover the harmony existing between scientific truth and revealed truth.

The Galileo Case

...Mr President! You said, very rightly, in your address that Galileo and Einstein characterized an era. The greatness of Galileo is known to everyone, like that of Einstein; but unlike the latter, whom we are honouring today before the College of Cardinals in the apostolic palace, the former had to suffer a great deal—we cannot conceal the fact—at the hands of men and organisms of the Church. The Vatican Council recognized and deplored certain unwarranted interventions: "We cannot but deplore certain attitudes (not unknown among Christians) deriving from a shortsighted view of the rightful autonomy of science; they have occasioned conflict and controversy and have misled many into thinking that faith and science are opposed." The reference to Galileo is clearly expressed in the note to this text.

To go beyond this stand taken by the Council, I hope that theologians, scholars and historians, animated by a spirit of sincere collaboration, will study the Galileo case more deeply and, in loyal recognition of wrongs from whatever side they come, will dispel the mistrust that still opposes, in many minds, a fruitful concord between science and faith, between the Church and the world. I give all my support to this task, which will be able to honour the truth of faith and of science and open the door to future collaboration.

Set in True Light

...Allow me, Gentlemen, to submit to your attention and your reflection some points that seem to me important to set again in its true light the Galileo affair. For in this affair the agreements between religion and science are more numerous and above all more important than the incomprehensions which led to the bitter and painful conflict that continued in the course of the following centuries.

He who is rightly called the founder of modern physics, declared explicitly that the two truths, of faith and of science, can never contradict each other. The Second Vatican Council does not express itself otherwise: "Methodical research in all branches of knowledge, provided it is carried out in a truly scientific manner and does not override moral laws, can never conflict with the faith, because the things of the world and the things of faith derive from the same God" (*Gaudium et Spes,* n. 36).

Creator Ever Present

Galileo feels in his scientific research the presence of the Creator, who stimulates him, inspires and helps his intuitions, acting in the deepest recesses of his spirit. In connection with the invention of the telescope, he writes at the beginning of *Sidereus Nuncius,* recalling some of his astronomical discoveries: "All that has been discovered and observed in the last few days thanks to the 'telescope' that I have invented, after having been enlightened by divine grace".

Galileo's confession of divine illumination in the mind of the scientist, finds an echo in the text already quoted of the conciliar constitution on *The Church in the Modern World*: "The humble and persevering investigator of the secrets of nature is being led, as it were, by the hand of God in spite of himself".

The humility which the conciliar text stresses is a virtue of the spirit necessary for scientific research as well as for adherence to faith. Humility creates a climate favourable to the dialogue between the believer and the scientist; it calls for the illumination of God, already known or still unknown but loved in both cases by him who humbly seeks the truth.

Galileo's Norms

...Galileo formulated important norms of an epistemological character, which are indispensable to reconcile Holy Scripture and science. In his letter to the grandduchess mother of Tuscany, Christine of Lorraine, he reaffirms the truth of the Scriptures: "Holy Scripture can never lie, provided, however, that its real meaning is understood. The latter—I do not think it can be denied—is often hidden and very different from what the mere sense of the words seems to indicate". Galileo introduces the principle of an interpretaion of the sacred books which goes beyond the literal meaning but is in conformity with the intention and the type of exposition characteristic of them. It is necessary, as he affirms, that "the wise men who expound it should show its real meaning".

The Ecclesiastical magisterium admits the plurality of the rules for the interpretation of Holy Scripture. It teaches expressly in fact, with Pius XII's encyclical *Divino afflante Spiritu,* the presence of different literary styles in the sacred books and therefore the necessity of interpretations in conformity with the character of each of them.

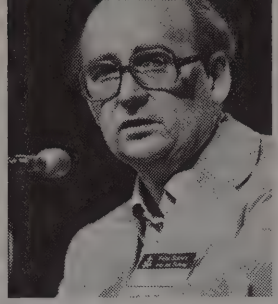
The various agreements that I have mentioned do not in themselves solve all the problems of the Galileo affair, but they contribute to creating a starting point favourable to their honourable solution, a state of mind propitious to the honest and loyal solution of old oppositions.

The existence of this Pontifical Academy of Sciences, with which Galileo was associated in a certain way through the old institution which preceded the present one to which eminent scientists belong today, is a visible sign which manifests, without any form of racial or religious discrimination, the deep harmony that can exist between the truths of science and the truths of faith...

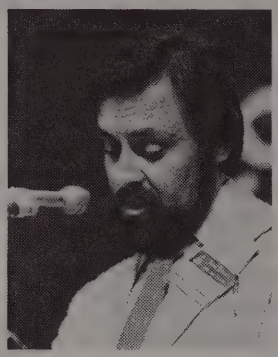
1.

4.

2.



3.



MIT SCRAPBOOK

Photographs in this issue are by Wendy Goldsworthy, Greg Moyer and John Taylor

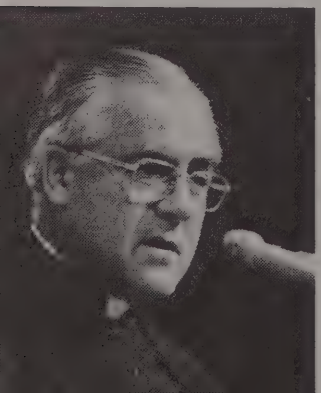
MIT Scrapbook

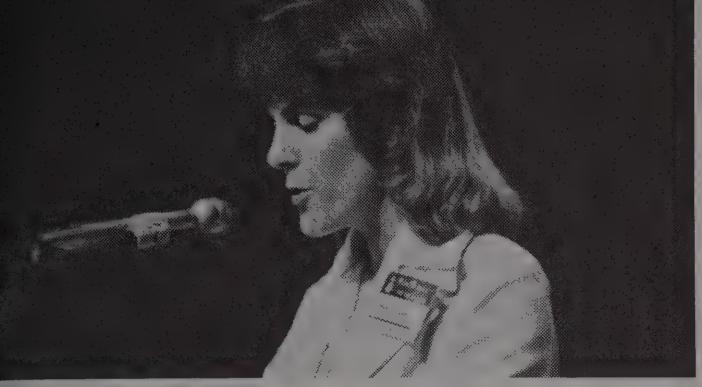
1) Conference Organizer, Paul Abrecht, speaks with Prof. Enilo Ajakaiye, physicist from Nigeria (left), and Dr. Carlos Chagas, a Brazilian scientist and President of the Pontifical Academy of Sciences, before the session at which Dr. Chagas spoke. 2) Dr. Bo Lindell, Chairman, National Institute for Radiation Protection, Sweden addressed the Conference on "Science and Technology as Promise and Threat". 3) Speaking on behalf of the socialist countries was Prof. Ernest Petric, political scientist from Yugoslavia. 4) A scientist participant from Africa discusses the purpose of the Conference with one of the demonstrators protesting the policies of the World Council of Churches. 5) American Roman Catholic theologian Prof. Rose-mary Ruether protested against the male domination of modern science. 6) The Archbishop of Boston, Humberto Cardinal Medeiros, welcomes the Conference participants to Boston on behalf of Boston's churches. 7) The plenary session on "The Nature of Science" was chaired by Prof. Charles Birch (right), Professor of Biology, University of Sydney. Next to him is Prof. Robert Hanbury Brown, British astronomer and physicist, Dr. Wangari Muta Maathai, Professor of Veterinary Anatomy, University of Nairobi, and Dr. Henk Verheul, Professor of Physics and Rector Magnificus of the Free University of Amsterdam. 8) Speakers at the plenary session on "The Biological Revolution: The Ethical and Social Issues" included Prof. Karen Lebacqz, Professor of Christian Ethics at the Pacific School of Religion, Berkeley, California. 9) Some of the leaders of the ecumenical service of worship at Old South Church, Boston, July 15 (left to right): Canon Burgess Carr, Old Testament scholar of Liberia, The Rev. Hone T.K. Kaa, Maori leader and Anglican priest from New Zealand, and Miss Irma García Heredía, Lecturer, Javeriana University, Colombia. 10) The Conference gathers for ecumenical worship on Sunday, July 15, at historic Old South Church, Boston. 11) Dr. Harold Gray, the Provost of MIT, welcomes the Conference on behalf of his world-famous Institute. 12) The debate about "The Economics of the Just and Sustainable Society" was followed with great interest. Dr. Herman Daly, Professor of Economics at Louisiana State University (USA), one of the protagonists, presents his arguments for "the steady-state economy". 13) Prof. Jean Rossel, Head of the Department of Physics, University of Neuchâtel, Switzerland, was one of the speakers in the plenary session on "Energy for the Future". 14) Dr. Jerry Ravetz, Professor of the Philosophy of Science, University of Leeds (U.K.), in his plenary address on "Science and Technology as Promise and Threat" was a sharp critic of the scientific establishment. 15) The Conference heard from several Arab scientists, including Dr. O.A. El-Kholy, engineer and Associate Director-General of the Arab Educational, Cultural and Scientific Organization, Cairo. 16) The Science Students participants gathered at Wellesley College for reflection on their concerns about Science and Technology prior to the Conference. Here a group of them gathers for worship on the campus of Wellesley College. 17) A view of the Conference during the coffee break outside Kresge Auditorium on the MIT campus.

7.

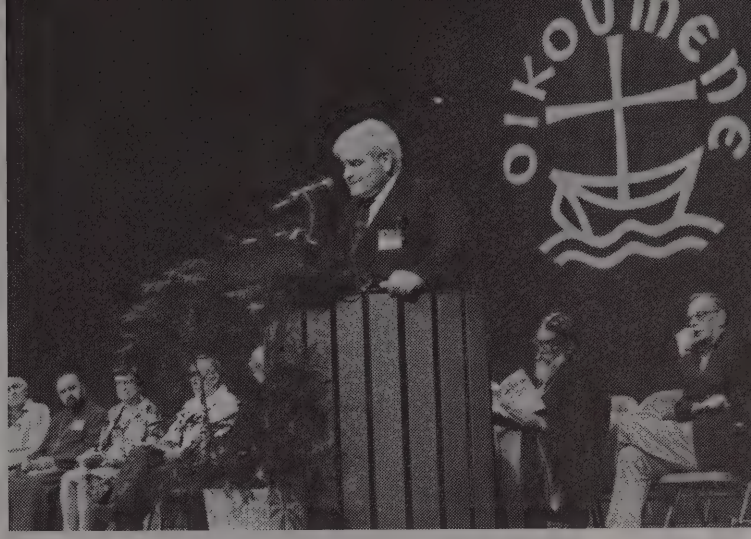
5.

6.





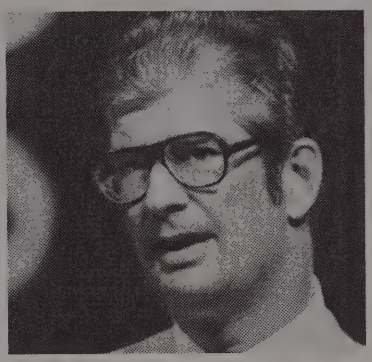
8



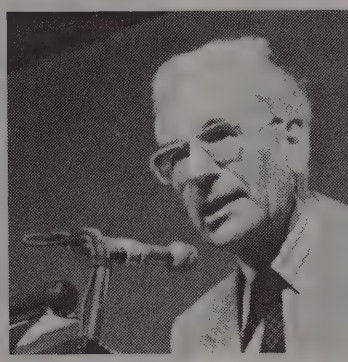
9

11

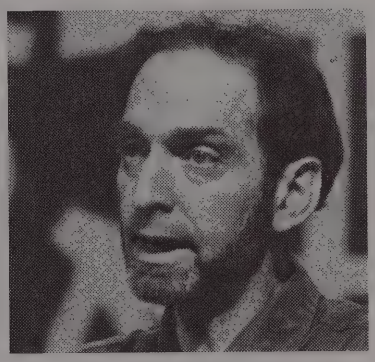
10



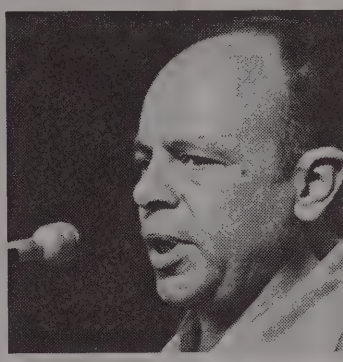
12



13



14



15

16

17

SLID
32
285

Church and Society Replies to its Critics

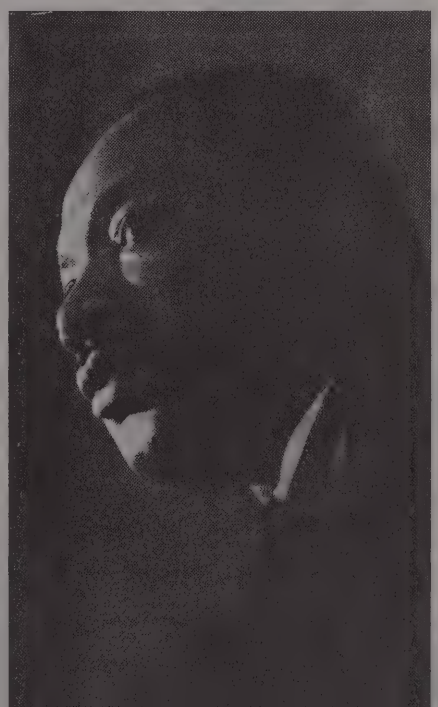
by Paul Abrecht

In 1979 two books have been published attacking the World Council of Churches' social thinking: *Christianity and the World Order* by E. R. Norman, Lecturer in History and Dean of Peterhouse, in Cambridge University, England, and *Amsterdam to Nairobi, The World Council of Churches and the Third World* by Ernest W. Lefever, Director of the Ethics and Public Policy Center sponsored by Georgetown University, Washington, D.C.

Both these books have been highly praised by the conservative American political commentator, Dr. George F. Will, who, in widely published newspaper columns (syndicated by the *Washington Post*) has used them as the basis of his own attack on the World Council of Churches. Mr. Will had also written a foreword to the book by Lefever.

The Norman book is a series of polemical essays and does not claim to be a serious factual study. One has the impression on reading the parts about the World Council that Mr. Norman's understanding of ecumenism in general and of the World Council of Churches in particular, is very slight indeed. He doesn't like the modern ecumenical movement or the World Council of Churches because he is an establishment churchman with Tory political views, opposed to an active Christian concern to better society. As he made clear in an earlier book, *Church and Society in England, 1770 to 1970* (published in 1976), he believes that his own church, the Church of England, has been misled by many of its leading upper and middle class intellectuals, laymen and theologians, to adopt liberal and/or radical social views. Prof. Norman's view of the WCC is readily summarized by quoting the sole reference to the WCC in the index to his 1976 book: "World Council of Churches, unsound teachings of"! For him an active concern for social justice constitute "unsound teaching" in the Church and since the ecumenical movement has promoted that concern he is opposed to it as well. His position has been debated in the churches for many years and rejected by most of them. It has also been rejected by the modern ecumenical movement from the time of its earliest meetings and especially the first major ecumenical conferences on Christian Life and Work in Stockholm in 1925 and in Oxford in 1937.

The empty pulpit. Dr. Martin Luther King Jr. was the preacher for the public worship service in St. Pierre Cathedral, Geneva, on Sunday July 17, 1966, but he was not present. He was facing a bitter race conflict in Chicago. But nevertheless his voice filled the cathedral and his image appeared on TV screens. His sermon had been recorded in a tiny room in Chicago in the early hours of the morning, on the theme: "It is past Midnight in our World Today". The sermon was followed by millions of TV viewers throughout Europe, one of the most moving moments in ecumenical history.



Norman's book was published while Lefever was completing his and Lefever clearly expresses his admiration for Norman's point of view by numerous appreciative quotations. In judging the WCC Lefever identifies with some of Norman's conservative theological and political presuppositions, and also offers an historical analysis, by which he claims to prove that the WCC has betrayed the true faith. Mr. Will obviously believes that he has succeeded. He writes in his foreword: "Readers of Prof. Lefever's essay can decide for themselves the extent to which bad sociology, bad theology, bad faith and, yes, sin feed on one another and are to blame for what the WCC has been doing". (After reading Lefever's book Mr. Will is so convinced of the WCC's misdoings that he suggests that "sinister people" have been involved in pushing the WCC in its present radical direction.)

Well, that is the question. Can a reader, any reader, a fair-minded Christian or even a prestigious conservative American journalist like Mr. Will, claim to have found the truth so absolutely in Lefever's book that he can decide for himself the extent to which the World Council of Churches is encouraging bad sociology, bad theology and bad faith? On what basis can such a claim be made for Lefever's book?

As the WCC staff person responsible for many years for its studies on ethics and social questions, I consider that Lefever has written a simplistic, biased and essentially confused and contradictory account of the social thought and action of the World Council of Churches. Readers would need to have more, much more information than they get from Mr. Lefever before they could begin to make the kind of final judgment about the WCC which Mr. Will suggests that they should. That Mr. Will has apparently made his judgment and encourages others to do so on the basis of the data and interpretation provided by Lefever illustrates a contemporary ecumenical problem. There are unfortunately too many like Mr. Will who are prepared to judge the WCC solely on the basis of a book like that of Lefever. It is my understanding that the first principle of ecumenism, scholarship and honest journalism is that all pertinent views on a controversial subject should be examined before a final judgment is made. Neither Mr. Norman, nor Mr. Lefever, nor Mr. Will have been faithful to that first principle.

I leave to American Christians and church leaders who are active in the WCC to give their own judgment of its work and the values they find in participating in it. But since Lefever focuses so much of his attack on the programme and staff of Church and Society in the WCC, it may be helpful for readers to have a reply from someone associated with that programme.

The Simplicities – and Contradictions

Extreme radicals and conservatives are it seems especially tempted to simplify complex social and cultural phenomena. Lefever's thesis is very simplistic indeed. The World Council of Churches, he declares, has since 1966 – the year of a major WCC World Conference on Church and Society – become a movement supporting a radical politicized theology of revolution. According to him, the WCC would like to maintain that insofar as its ethical and social stance has become more radical and anti-Western since 1966, this is the result of the influence of Third World churches and Christians who have joined the Council in such large numbers in the period 1955-1979. Not true, says Lefever.

Conference of 1966

The photo shows the plenary session on "The Political and Economic Dilemmas of the Nations" Speakers (from left to right) include: Miss Barbara Ward, the British economist; the late Prof. André Philip, Professor of Economics at the Sorbonne; Dr. Raül Prebisch, General Secretary of the United Nations Conference on Trade and Development; Mr Bola 'Ige, lawyer and political leader from Nigeria; and Mr M.M. Thomas, Chairman of the Conference. Mr 'Bola Ige, one of the "radicals" of the Conference, is now Governor of Oyo Province in Nigeria.

It is primarily the work of Christian radicals and revolutionaries from the West who have dominated the World Council, who have taught the theology of revolution to the Third World Christians and who have insured that their voices were heard at WCC conferences and meetings. Lefever makes this accusation at several points in his book.

On page 21 he says:

"This shift of focus (from a theology of order and peaceful change to a theology of revolution) was thus not simply the result of increasing representation in the WCC from Asia, Africa and Latin America. The Third World outlook and constituency... had been developed largely in the United States and Europe; then it was exported to the Third World."

And on page 47 Lefever says, again:

"The more radical stance (of the WCC after 1966) both reflected and nourished the prevailing Third World outlook, which was developed largely by liberal and Marxist intellectuals in the West and exported to Asia, Africa and Latin America by 'liberation' missionaries, by returning students who had studied in the West, and by ecumenical conferences."

I think most readers, whether in the West or in the Third World, would consider it a simplistic pretention for the WCC to claim that it had originated, developed and propagated the current spiritual, theological, social and political revolt of the Third World; or that Western people (no matter how sensitive) could possibly conceive the resentment of those who feel abused by the economic and political power of the industrialized countries. It is also *dangerously* simplistic to so argue because it could lead Western Christians to believe that the anger of the Third World against the West isn't real – it's just the work of "guilt-ridden Western intellectuals" who have created a class of discontented persons in various parts of Africa, Asia, and Latin America. It is my experience that Christians of the Third World, and their brothers and sisters of other faiths, don't need Western Christian intellectuals to tell them how much they should strive for change.

The facile interpretations in Lefever's and Norman's books of Third World demands for radical change are astonishing especially in the case of Lefever who claims to have visited more than sixty Third World countries. The director of the Ethics and Public Policy Center of Georgetown University should know that there is a vast literature on the complex spiritual, ideological, social and political origins of African, Asian and Latin American movements for liberation. Many Christian scholars have also addressed themselves to the role of Christianity in Third World liberation movements. Why is it that so many of the leaders of the revolutionary nationalist movements for independence in Africa (Nkrumah, Mondlane, Kaunda, Nyerere) have been Christians and believed that to struggle for the independence of their countries from old and new forms of colonialism was a moral responsibility? Because they were taught by the WCC and its disciples? Hardly. The World Council of Churches didn't even exist when they were in the midst of their political formation. Most of them were raised in a Christian milieu created by British and American missionaries who tended to be theologically conservative. Prof. Lefever doesn't even acknowledge this paradox. He chooses to leave aside the spiritual and political challenge of Third World movements for social change in order to prove his thesis that the WCC did it, all by itself.

At one point Lefever contradicts his own thesis – that the WCC is responsible for the radical political stance of most Third World Christians – by a quote from Norman in which the latter declares that a commitment to radical secular theories of social justice had already corrupted *all* the churches well before the 1966 Conference. Lefever says:

"Prof. Norman correctly notes: 'One of the most striking developments *of the last twenty years has been the way in which all the churches – Catholic, Orthodox, Protestant* – have responded in about the same degree to the secular political ideologies. There are, in consequences, for the first time in history, no enormous differences in the social priorities of the major churches. The only significant modification to this is the difference of emphasis imposed by the division between those who have adapted to the Marxist socialism of the Eastern bloc, and those who have the liberal social radicalism, with all its Marxist rhetoric, of the West and of the developing world'".
(*Amsterdam to Nairobi,* p. 51, my italics.)

Archbishop Sarkissian of Lebanon one of the six Presidents of the 1966 Conference, is now Karekin II, Catholicos-Coadjutor of Cilicia, Armenian Catholicossate of Cilicia, Antelias, and Vice-Moderator of the WCC.

So after all, it is not a minority of sinister people guiding the WCC who have created or promoted the present radical stance of the churches and the ecumenical movement. Apparently "all the churches" have responded "in about the same degree" to the demands for radical social change in our world. In other words, everyone in the church is out of step except Norman, Lefever and their friend Mr. Will! Most readers would probably agree that the slight influence of the World Council of Churches over the social thinking of the Roman Catholic Church suggests that it cannot take credit for having created the "radical stance" of that Church! All that the WCC can be accused of, according to Norman (as quoted by Lefever), is being "the organization... that most specifically engages in the detailed application of contemporary political doctrines". But how could the WCC be blamed for doing something on which *all* the churches had agreed? The inconsistency and absurdity evident in this one quotation are characteristic of many of the sweeping statements in the two books. The fact that Mr. Will does not recognize such contradictions reveals how little he understands the thinking of these books he so enthusiastically endorses.

This lack of perception is further revealed in his foreword to the Lefever book:

"Let us be clear, as Professor Ernest Lefever is, about what the question is not. It is not whether Christians should be politically active or whether their faith should inform their action. Of course they should; of course it should... Chris-

tians believe that the world is under judgment, including its institutions. But it is wrong to believe that this means that Christianity is somehow 'inherently' revolutionary, or that Christians can casually undertake or underwrite political upheavals". (p. vii)

Would that Mr. Norman and Mr. Lefever had made their support of the principle of Christian political action so clear! As we have seen above Norman dismisses the political and social witness of *all* the churches as Marxist tainted and is *not* at all clear on what he thinks acceptable Christian political action would be. Lefever, having quoted Norman so approvingly, leaves us in doubt about his own final position. He adds to the uncertainty about his political ethics by such statements as the following:

"In identifying with a secular power or agency, the church runs the risk of losing its critical distance and of subverting its prophetic function, its capacity to judge all movements and systems by universal Christian standards. It is thus just as foolish, as Professor Edward Norman points out, for the Church to endorse Julius Nyerere's Tanzanian Christian socialism as it is to support Franco's Fascist Spain. Christians can and should support justice, freedom, the rule of law and respect for the human person". (p. 4-5)

The question is how do we support these "universal Christian standards" without making some kind of political judgment based on the relative merits of the different political options and yet short of total endorsement or total identification? By his manner of defining its application, Lefever in effect undermines the principle of Christian political responsibility. Without making choices Christians are in danger of using their "universal standards" to avoid their political responsibilities. By refusing to make a choice many conservative churchmen separate themselves from the main body of Christian social thought today and end up supporting the status quo.

Mr. Will reveals his political bias when he says that it is wrong to interpret the Christian view of the world under judgment to mean that "Christianity is somehow 'inherently' revolutionary or that Christians can casually undertake or underwrite political upheavals". Who says it is *wrong?* Mr. Will? The churches? Mr. Will ducks the issue by adding "casually". Is it all right if it is done thoughtfully? I know of no considered theological opinion that is so definitely against Christian participation in radical political change. It is a subject of much debate within the WCC itself.

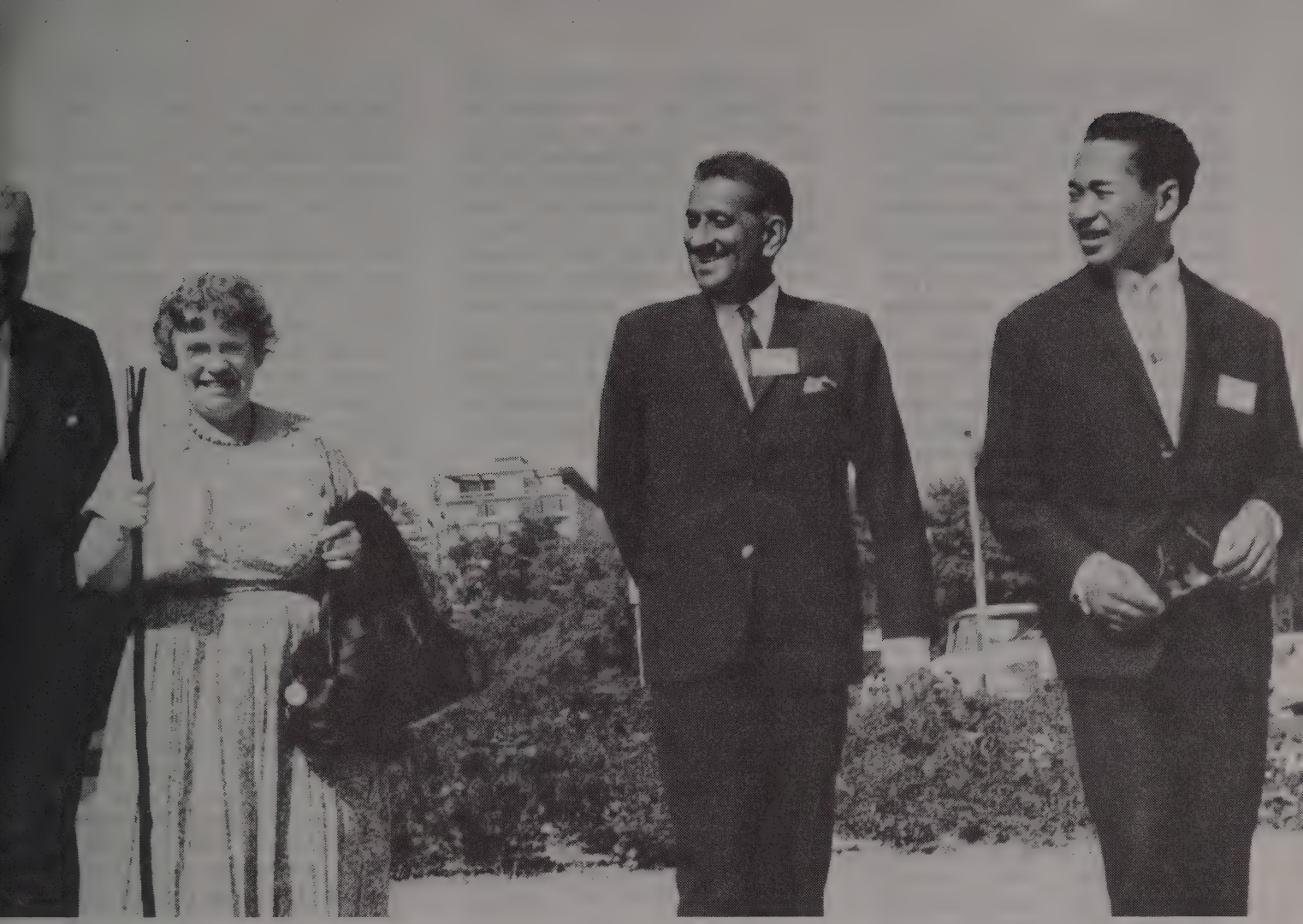
The Biases

How is it possible for Lefever to develop and maintain his numerous erroneous theses? It is clear that he only pays attention to opinions which support his conservative critique of the WCC, especially as expressed in such books as *Who Speaks for the Church?* by Prof. Paul Ramsey upon which he draws heavily. But these works are not new – they have been evaluated many times, and substantially rebutted. Lefever is oblivious to all that and treats them as unquestioned evidence. For example, Ramsey's book was published in 1967 and has been reviewed and criticized by a number of well known American Christian scholars like Prof. John C. Bennett, the former President of Union Theological Seminary. As the organizing secretary of the 1966 Conference, I also wrote a refutation of its major points. None of these doubts, questions or challenges to the Ramsey book are mentioned in Lefever's presentation. To quote it in 1979 as sound evidence in an indictment of the WCC without any mention of its subsequent evaluation is not the work of a scholar but of a pamphleteer. Lefever's attitude seems to be, "Don't bother me with alternative information, just leave me with my biases". And these biases as they concern the WCC Church and Society programme and especially the 1966 World Conference on Church and Society are evident throughout his book, and lead to many false statements. Two examples may be cited:

1. On page 23 the charge is made that the Church and Society staff picked mainly radical leaders and speakers for its 1966 World Conference. On the same page it is said, "Given the conference conclusions, it appears that in most professional categories delegates were chosen, in part, because of their ideological preference for 'rapid social change'". No evidence is cited for these accusations of partiality. Lefever's thesis appears to be, if the conference came to radical conclusions that must necessarily have been because the conference membership was rigged. In fact a large proportion of the participants were selected by the

member churches after consultation with the WCC. At least two-thirds of the nearly 400 official participants were coming to their first ecumenical conference and were strangers to the staff. The main point of the prior consultation with the churches was to ensure a balance in the conference between different disciplines, between laymen and clergy, and some representation of women and youth. In addition, a fair distribution had to be maintained between the churches in each country. It is true that a limited number of persons not nominated by their churches were invited to serve as consultants or coopted staff. Paul Ramsey himself was invited in this category.

Lefever seems unaware that several American businessmen who participated in the conference and whose churchmenship, integrity and Christian commitment could hardly be challenged subsequently wrote evaluations of the conference which effectively refute his charge that the conference was dominated or manipulated by radicals. Mr. Robert N. Hilkert, then the first Vice-President of the Federal Reserve Bank of Philadelphia, was one of these. (See the statement prepared for his church: "A layman's report on the Conference on Church and Society", 1967.)



Five leaders of the 1966 Conference: from left to right: Metropolitan Juvenaly of the Russian Orthodox Chruch; Dr. Eugene Carson Blake, then General Secretary elect of the WCC; the late Margaret Mead, M.M. Thomas, and Pastor Richard Andriamanjato, at that time mayor of Tananarive, Madagascar.

It is also interesting to compare Lefever's evaluation of the 1966 Conference on Church and Society with that of Canon Ronald Preston, Professor of Social and Pastoral Theology at the University of Manchester and the foremost Anglican authority on ecumenical social thought. In his recent book, *Religion and the Persistence of Capitalism,* (1979) dealing with developments in Christian social teaching in the decades since World War II, Preston has a very different interpretation of the conference of 1966:

"This could fairly be said to be the most thoroughly ecumenical conference ever held in the history of the Christian Church. All the main Christian confessional traditions were well represented. Roman Catholic participant observers played an active part; several had been involved in the preparation of the Pastoral Constitution of the Second Vatican Council, *Gaudium et Spes.* The accession to the World Council of Churches of the Russian and other Orthodox churches from Eastern Europe meant that the Orthodox representation was much increased. The membership was so arranged that those who came from the Third World countries were sufficiently numerous to be influential and not be made part of a process and an agenda that reflected the preoccupations of the 'Christian' West. Moreover lay folk were as numerous as clergy; and many of them were highly competent in their occupations. It is significant that the result of a conference set up in this way proved radical, so radical that many Christians from the 'established' churches were disturbed by it though in retrospect it does not seem so fearful now. Indeed its concerns have moved steadily more into the forefront ever since". (p. 42-43)

And Preston, referring to the WCC programme of studies on social questions since 1966, concludes:

"The upshot is that for the first time in centuries the churches have available some organized thought on social issues which is up to date to guide them. If they persist in archaic attitudes it is wilful persistence". (p. 43-44)

In light of such contrasting appraisals of this one ecumenical event one wonders again how Mr. Will could imagine that all you need in order to make a judgment about the WCC's social thought is to be found in Lefever's book.

2. A second example of Lefever's biased reporting and interpretation is found on page 27 where he writes about the 1968 Uppsala Assembly of the WCC which tended to support the major findings of the 1966 Conference on Church and Society:

"The agenda (of the Assembly) was virtually controlled by what Paul Ramsey has called 'the social action curia', the Church and Society stalwarts from the staff of the WCC and the major member denominations. Of the six study sections, four were devoted to the problems of 'rapid social change'."

These charges are demonstrably untrue. In 1967 and 1968 I was the *only* staff person from *Church and Society* involved in the Uppsala Assembly preparations because I was then the only person on the staff

of the department! The planning of an Assembly is a laborious process directly under the supervision of the General Secretary of the WCC (at that time Dr. Eugene Carson Blake). WCC staff and Church people representing every aspect of World Council programme (Faith and Order, Evangelism, Laity, Youth, role of women, International Affairs, etc.) have an equal role. The Uppsala agenda fully represented this diversity of input. There was one section (Section III) on World Economic and Social Development, which dealt directly with issues of rapid social change. The themes of the other sections were:

The Holy Spirit and the Catholicity of the Church

Renewal in Mission

Towards Justice and Peace in International Affairs

Worship

Towards New Styles of Living.

The leadership of Section III included Prof. Jan Lochman, a Czech theologian, now in exile and Professor of Systematic Theology at the University of Basel, the Chairman; Mr. Chief Justice Gordon S. Cowan of Nova Scotia, the Vice-Chairman; and the Secretary, Dr. M. M. Thomas of India who had chaired the 1966 Conference and who was elected Chairman of the WCC at the Uppsala Assembly. I was the WCC staff person responsible for this section. There were no other "stalwarts" from the WCC or the social action staffs of the major member denominations.

Are the Staff of Church and Society Christians?

The reader could easily get the impression from reading Norman and Lefever that the staff of the World Council of Churches are all secular radicals. Norman says in his 1976 book that by the time of the 1968 Assembly, "The World Council's own staff were quite frankly left-wing" (p. 465). And Lefever says, "The wellspring of WCC radicalism may be the Geneva headquarters staff,..." (p. 50). In light of these statements the reader might like to know who have constituted the staff of Church and Society in the last twenty years. What was their training, theological orientation, and commitment to the Church? The executive or programme staff were as follows: (Please note that no more than three of these persons served the WCC at any one time.)

1. Myself, the Executive Secretary of Church and Society since the constitution of this department in 1954. I am an American Baptist pastor, trained in economics at the University of California and in theology and ethics at Union Theological Seminary in New York where I studied under Reinhold Niebuhr and John Bennett. I have been called a lot of things but not a Marxist. (In 1953 an East European Bishop called me an agent of NATO. Later, in 1956, the Bishop resigned and eventually became Foreign Minister of his country.)

2. Rev. Daisuke Kitagawa, an American-Japanese Episcopal priest who joined the staff in 1956 to work with churches in areas of rapid social change. In 1960 he became the secretary of our sub-group on Racial and Ethnic Relations which he served until 1962 when he was called back to his church in New York. He later returned to the WCC in 1969 to work in the Commission on World Mission and Evangelism and died in 1970. He was a courageous and truly Christian opponent of all forms of racial injustice.

3. Dr. Thomas Okuma. He succeeded Kitagawa in 1963 and served until 1967, when he returned to teach Christian Social Ethics in the United Protestant Theological School of his native Hawaii. He is an ordained pastor of the Methodist Church and did his graduate studies at the Boston University School of Theology. He was the staff person responsible for the discussion of the Churches and Racial and Ethnic Tensions in the 1966 Conference on Church and Society.

4. Dr. Mauricio López. He came from the Student Christian Movement and the Protestant Church in Argentina. A young Christian social philosopher, who served on the Church and Society staff between 1962 and 1967. He returned to teach philosophy in the University of Mendoza and later became Rector of the University of San Luis. On January 1, 1977, he was taken from his home by a band of armed men who claimed to be police and has not been seen since. Some say that he is held incommunicado by the state police of Argentina, but the police say that they do not know of his whereabouts. A quiet and gentle man, he was convinced of the need for radical change in Argentina and other countries of Latin America dominated by the military.

5. Mr. Axel von dem Bussche, a layman from the Evangelical Church in Germany, who volunteered to serve on the staff 1968-1970, is a retired soldier, educator and diplomat. As a young officer in the German army in 1943 he was scheduled to make the first attempt on the life of Hitler (see Schirer, *Rise and Fall of the Third Reich,* p. 1333). After the Second World War he was cultural attaché in the reopened German Embassy in Washington. In political affiliation he tended to be aligned with the leading figures of the Christian Democratic Union in the Federal Republic.

6. Rev. David Gill. A young Australian theologian and minister who joined the staff in 1968 following the Uppsala Assembly which he attended as a delegate of his Church. He was largely responsible for the staff work in preparing the 1973 report on Violence and Non-Violence. Later he became the chief executive officer of the Fifth WCC Assembly in Nairobi, after which he was appointed Director of the WCC programme on Church Renewal and Congregational Life. In January, 1980, he became the Executive Secretary of the new Uniting Church in Australia.

7. Rev. Peter Scherhans. This able young German theological student from the University of Heidelberg served on the staff between 1973-1975. He is now vicar in the village of Büchenbronn.

Altogether, a group with their roots in the Church, theologically qualified, and not very "sinister".

The Naiveté of the American Conservatives' View of World Social Change

Perhaps the real complaint of Lefever is that by its "radicalism" the WCC is encouraging an unfair and subversive critique of the U.S. and of Western values. He writes:

"In its early years the WCC advocated creating 'the responsible society' by peaceful, democratic, and constitutional means. Gradually this gave way to a qualified approval of violent and revolutionary change in the Third World, and in several cases even support for terrorist groups. Western political norms were replaced, at least in part, by an ideology that laid the chief blame for the ills of the Third World on the sins of the West, particularly the United States..." (*Amsterdam to Nairobi,* p. 47)

It should be obvious to any thoughtful observer that purely Western concepts of social change would be unsatisfactory in a World Council of Churches that had come to include so many people from non-Western countries and cultures. Moreover, is it anti-Western and anti-USA to urge the super-powers of this world to use their economic and political predominance more responsibly? About the issue of violence in social change, it is of course quite untrue that the WCC, as Lefever charges, has given up on democratic, constitutional and peaceful means. In WCC Assemblies and elsewhere, the churches have continued to debate the use of violence and non-violence in the struggle for justice, and as Lefever himself recognizes, the report of 1973 on this theme clearly sets limits to the use of violence to bring about social change.

Lefever himself believes in a "qualified approval of violent change". In one of the last paragraphs of his book he writes:

"The course of wisdom and moral responsibility for the WCC would be to encourage the peaceful and lawful forces that are trying to deal constructively with the problems of poverty, injustice and lack of freedom. *There have been, of course, situations so rigid or dangerous that armed violence was the only responsible option.* The strike against Pearl Harbour and North Korea's invasion across the thirty-eighth parallel in 1950 were situations that justified a violent response. Most crises are more ambiguous". (*Amsterdam to Nairobi,* p. 60-61 my italics.)

Indeed. Who is to decide that a violent response is permissible in the case of Pearl Harbour or Hitler, or North Korea, but not against Ian Smith and Co.? Lefever gives the impression that he should be allowed to decide for everybody, including the Third World, when "armed violence was the only responsible option".

Lefever cannot refrain from lecturing the people of Africa, Asia and Latin America on their true "problem" and "condition". This kind of Western moralistic paternalism characterizes his whole book, and limits his comprehension of the meaning of ecumenism today. For example, he says emphatically that the WCC was wrong to cease its support of Bishop Muzorewa who represented a "democratic and constitutional approach" to change in Zimbabwe, in contrast to the "authoritarian and violent approach" of the Patriotic Liberation Front. Unfortunately for Mr. Lefever and Mr. Will, in the short time since the publication of the book a new Constitutional Conference on Zimbabwe has had to be convened in London at the insistence of the major African political leaders because of the evident inadequacies of the "peaceful and democratic" constitution of Rhodesia which Lefever defends so absolutely. Furthermore, the need for a new Constitution was agreed to by a Conservative government in the U.K. and by the U.S. State Department.

One might conclude from reading Messrs. Lefever and Will, that American conservatives are so blinded by their ideological outlook that they can no longer face the "social realities" which they would like the rest of us to believe is their particular speciality.

The WCC and the Struggle Against Racism

Lefever is convinced that the "revolutionary doctrine" characteristic of WCC thinking in 1966 "became most dramatically evident in the Programme to Combat Racism", and he has a lot of questions and accusations about that particular WCC enterprise. My colleagues in the PCR can reply to his charges – as they have replied to similar charges already dozens of times. There is however some information I can offer concerning Lefever's interpretation of the history of the WCC's work on racism, where I can testify that he again badly misleads his readers. This relates especially to the background for the WCC Programme to Combat Racism, and the developments which led up to it. Lefever's interpretation is abbreviated to say the least. He writes:

"The Programme to Combat Racism is rooted in the strong anti-racism pronouncements of the Uppsala Assembly in 1968 and in a recognition of the ineffectiveness of the WCC Secretariat on Racial and Ethnic Relations (established in 1961)". (p. 31)

This summary judgment leads him to omit a crucial period in the WCC's constantly increasing involvement in the struggle against racism especially in the 1960's. It also obscures the WCC's efforts to clarify the theological and ecclesiastical approach to the increasingly violent struggle. To refer to all that would of course weaken Lefever's argument that WCC social thought and action is controlled by political ideologies of liberation rather than a truly Christian theological and ethical motivation.

The facts, for the period 1960 to 1968, pertaining especially to the WCC's involvement in the race struggle in Southern Africa, can be briefly summarized as follows:

1. May 12, 1960. Letter from the WCC officers to the member churches in South Africa about the concern of other WCC member churches following the Sharpville riots (March 21, 1960) and the killing or wounding by the police of nearly four hundred persons.

2. December 7-14, 1960. World Council of Churche's Consultation with leaders of member churches in South Africa, at Cottesloe, Johannesburg, leading to a statement on Christian responsibility for racial justice "adopted by 80% of the participants".

3. December 1961. Message to Christians in South Africa from the Third Assembly of the WCC, in New Delhi, following the repudiation by four member churches in South Africa of the Cottesloe statement, and their withdrawal from the WCC.

4. August 1963. Letter to member churches from the WCC Central Committee, calling on them to "share in the leadership of the struggle for racial justice", as a Christian duty.

5. May 1964. Ecumenical Consultation on Christians and Race Relations in Southern Africa, in Mindolo, Zambia, (organized by Church and Society) attended by 60 persons representing churches throughout Southern Africa. The Consultation noted that the race problem was leading to increasing anger and violence:

"The urgency of the situation in South Africa is further increased by the conviction of leading Africans that, as all peaceful measures tried by African political organizations over a period of many to bring an ordered change have proved abortive, only one avenue remains open - that of violence".

The Consultation report was presented to the Executive Committee of the WCC at its meeting in July 1964 in the Federal Republic of Germany. In a statement on "The Churches in the Present Race Conflict" the Committee observed that the present "disorders should not

make Christians waver in their commitment to the fight against discrimination and prejudice".

6. July 1966. Discussion of the problem of racism in the Conference on Church and Society where Dr. Martin Luther King, Jr. preached the main conference sermon which was broadcast on Eurovision and provoked wide interest and comment.

7. 1967. Preparation for the discussion of Racism at the Uppsala Assembly.

Yes, in retrospect, this may have been an "ineffective" witness. The emphasis was on dialogue, on trying to avoid the violence which Lefever so decries. But it alerted the churches to the mounting racial tensions in the world and by the time of the Uppsala Assembly it had become obvious to many that dialogue, study and moral appeals were not enough.

It will be evident to any fair-minded scholar that the ecumenical struggle against racism has had a long history, has moved through many stages, and that here has been a constant concern about the right theological/ethical approach and the options open to Christians for effectively participating in the struggle. Lefever's easy dismissal of so much of this history of concern shows, once more,how determined he is to avoid those facts which would invalidate his judgment.

* * *

A concluding observation. Lefever has not written just a bad book - it is a travesty of scholarship and of Christian fairness. Both he and Norman have to distort the record to make their case.

Were they concerned about maintaining the integrity of the Church and eager to know what the WCC stands for, they might do what several member churches, including the Church of England, have recently done: come to the WCC offices to talk with the staff and find out what is happening. They might even begin by reading the report from the Church of England delegation, a model of fairness and carefully stated evaluation of the WCC's work, which found no basis for the extravagant statements of people like Norman.

But perhaps there is political mileage to be gained by producing such distortions and exaggerations. These are useful in influencing fearful and troubled minds. The big lie technique is still alive and flourishing.

The attention given these books in so-called neo-conservative circles, especially in the USA, raises serious questions about their integrity. Do they have to stoop so low to defend their views?

The Highlights of the MIT Conference on tape

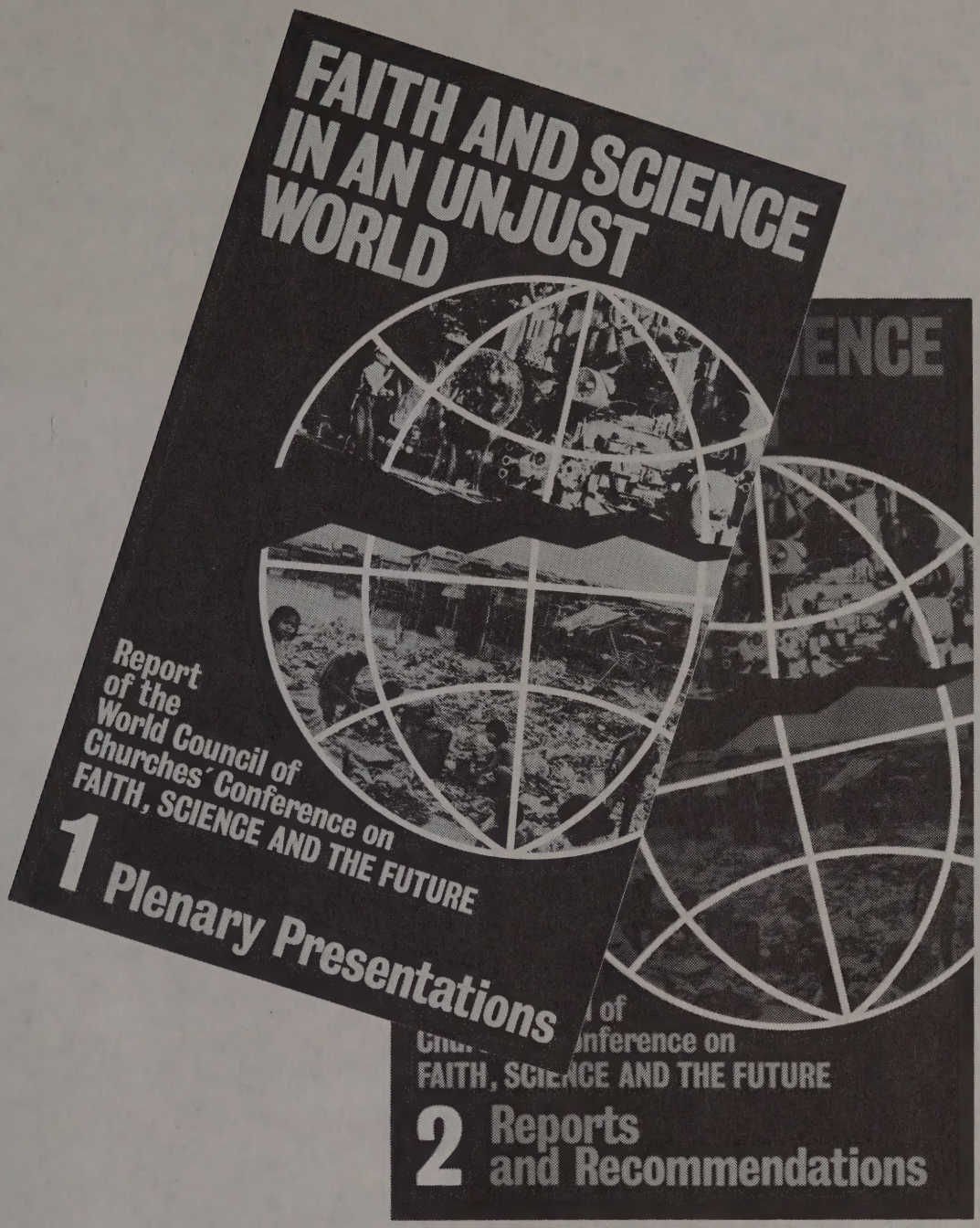
Two audio casettes are now available:

Casette No. 1 – "Faith, Science and the Future", published by the WCC, with excerpts from the "Third World Perspective" as well as from the adresses of the following: Gregorios, Hanbury-Brown, Birch, Rose, Rossel, Leuenberger, King, Maathai, Schröder, Sheridan, Francis and Weizenbaum.
(Available directly from the Communications Department of the WCC in Geneva)

Casette No. 2 – "Faith, Science and the Future" published by the NCCC-USA, with excerpts from the adresses of the following: Potter, Hanbury-Brown, Alvez, King and Lebacqz.
(Available from NCC CASETTES, Rm. 860, 475 Riverside Dr., NY, USA)

Also two recent books on the theme of the Conference:

J. Robert NELSON – Science and our Troubled Conscience, *Fortress Press,* USA 1980 William S. LEA, Faith and Science: Mutual Responsibility for a Human Future, *Forward Movement Publications,* Cincinatti, Ohio, USA



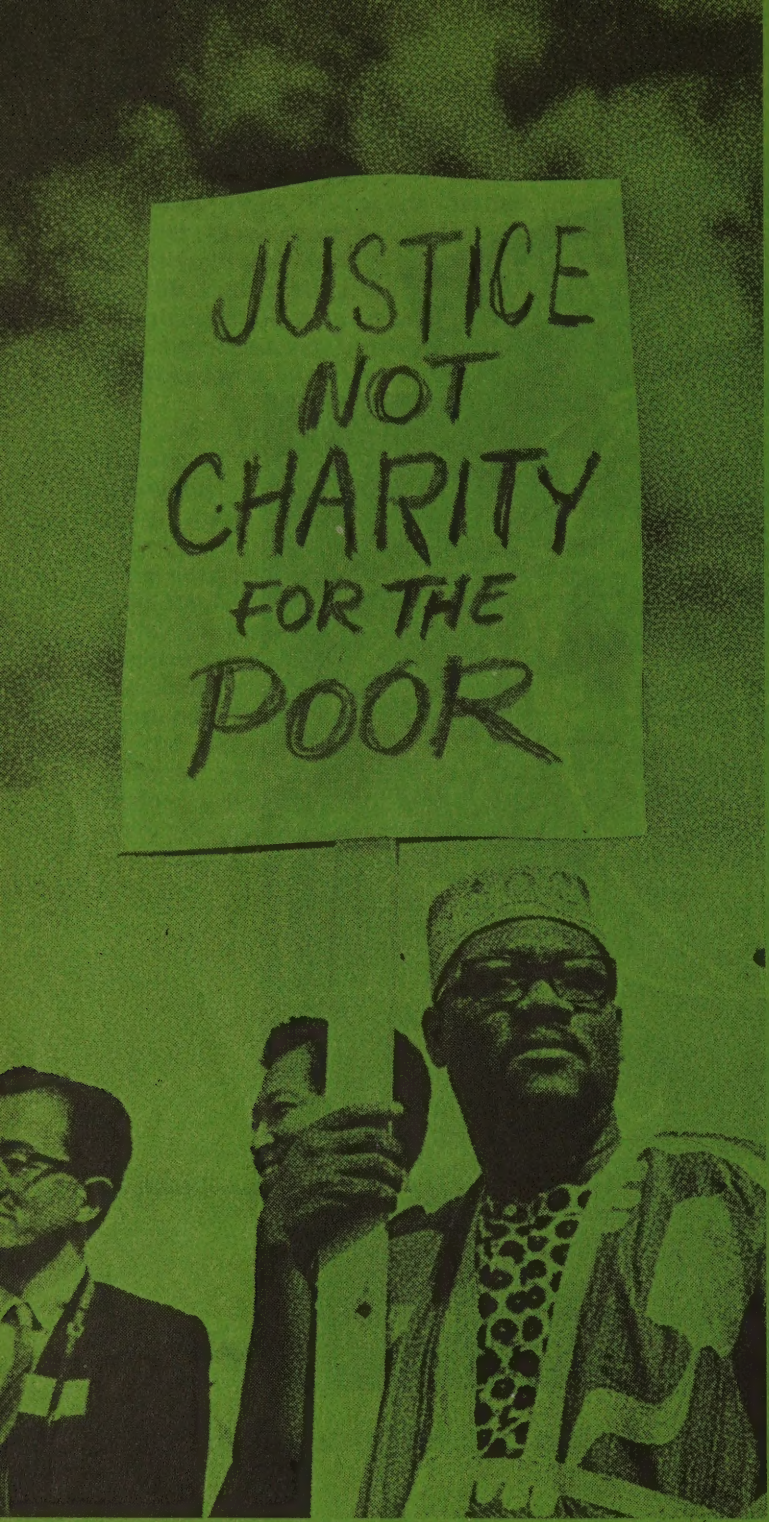
Just Published
Faith and Science in an Unjust World
the official Report of the 1979 WCC World Conference on Faith, Science and the future.

This two-volume report tells the story of the Conference and the concerns it sets before the Churches.

Volume I – Plenary Presentations, includes all the papers presented to the Conference. Skillfully edited by Prof. Roger Shinn, this book also highlights the ethical issues that emerged in the plenary discussion.

Volume II – Findings and Recommendations, contains the reports of the ten Working Sections of the Conference, the resolution on Science for Peace, the Statement of Third World participants on the misuse of science and technology by the developed countries, and the findings of the Science Students taking part in the Conference.

Order copies from the WCC Publications, your National Council or from Fortress Press in the USA.



A view of the 1966 Conference on Church and Society. This meeting has come under attack by Conservatives in the USA and U.K., for opening the door to new political and ethical thought in the Church. An article in this issue answers the conservative distortion of this event.